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THE CINCINNATI

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THE CINCINNATI LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.
T. M. STEVENS, M. D., Asst. Editor.

VOL. XIX JANUARY, 1876—No. 1.

Original Communications.

Art. 1.—A comparison between the results of the treatment in one hundred cases of Ophthalmia Neonatorum in private, and one hundred cases in hospital practice.

By S. C. AYRES, M. D., Cincinnati.

Ophthalmia Neonatorum is a disease not unfrequently met with in private practice. It occurs more frequently among the poorer classes and those uncleanly in their habits, but the higher classes are not exempt. It sometimes runs a mild course and terminates favorably, but at other times it is very violent and leaves the eyes more or less damaged.

No one will deny the importance of this disease, and no one who has treated a case will question its danger to vision. It is a form of eye disease, which more frequently falls into the hands of the family physician, than the specialist, at least in its earlier stages. Various causes are assigned for its origin. It has been claimed that it is usually excited by contact of specific or acrid vaginal discharges, with the conjunctiva during the act of parturition. There are undoubtedly many cases where there is no abnormal vaginal discharge in the mother and yet where the blennorrhœa assumes a violent form. On the other hand the children of mothers suffering from go-

norrhœa, often escape entirely. Want of cleanliness in washing the child after birth, impure air, sudden changes in temperature, atmospheric poisons, defective nutrition, exposure of the infant to bright light, have all been assigned as causes for this disease. Under favoring circumstances any one of them might be sufficient to account for its development.

While it is important to know the cause in all cases if possible, yet it is not essential to the treatment, for that depends on the severity of the case.

Whatever may be its origin, and it is often obscure, we have a dangerous inflammation to deal with, and one which should receive the prompt and faithful attention of the attending physician. Unfortunately for the poor children it is often considered a simple, harmless inflammation which will pass off in a few days. Some simple collyrium is ordered and the case is entrusted to the nurse. She follows instructions, and the case progresses until it becomes alarming, when the child is sent off to some specialist. In other cases the nurse takes it upon herself to treat the case, until her resources are exhausted, when she calls upon a physician, who may consider himself fortunate if he does not find the corneæ ulcerated and sloughing. Many of these cases fall into the hands of midwives. They are generally as ignorant as they are conceited, and undertake to treat the eye, unwilling to acknowledge that any one knows more than they. The consequence is a large proportion of the bad cases, which fall in the hands of the specialist, have been treated by these women until, either the parents become alarmed and desert them, or the child is found to be blind. The distressed parents generally tell the same story, the midwife said that there was no danger, that children often had such inflammations and recovered entirely, and that she used "breast milk" and "chamomile tea," and some other simple remedies "which would do no harm if they did no good." Thus are the anxious fears of the parents quieted, by one who is too ignorant to know the danger, and too stupid to see it when it is pointed out.

In the smaller towns and in the country these cases are subjected to most inefficient treatment, or shamefully neglected. The patient is often several miles from the doctor, and he is not able to give it that attention it deserves, and has to entrust the treatment to the nurse or the old women of the neighborhood. Many physicians seem to be afraid to treat the disease. They do not attack it as they do inflammations in other parts of the body; if they did, their results in its treatment would be much better than they usually are. We feel justified in

making the assertion that less judgement is used in its management than in that of any other disease to which infants are liable.

This seems like a bold assertion, but we think that the statistics presented below of one hundred cases in private practice, compared with one hundred cases treated in the Cincinnati Hospital, carry us out in it.

These cases are recorded with the condition of the child's eyes, at the time it was presented for treatment. They had all of them been under the care of their family physician, or midwife, or nurse up to that time.

The ultimate result in all these cases cannot be known, as the vision often continues to improve, even for years while the child is growing and developing. Thus very unpromising cases in the beginning, turn out much better than could safely be predicted for them while under active treatment. But enough is known to show the disastrous results of the disease, and its effects on the vision of the little sufferers.

These cases are recorded in the order in which they were admitted for treatment.

No.	AGE.	COMPLICATIONS.	RESULT RIGHT EYE.	RESULT LEFT EYE.
1	3 days.....	None.....	Rec'y with clear cornea	Recovery with clear cornea.....
2	3 weeks.....	Central ulceration of both corneæ.....	Not recorded.....	Not recorded.....
3	3 weeks.....	None.....	Favorable.....	Favorable.....
4	2 months.....	Ulceration and perforation of both corneæ..	Cen'l opacity of cornea leucoma adherens some chance for iridectomy.....	Central opacity of cornea and leucoma adherens, hopeless.
5	2 months.....	Blind from ulceration & perforation of corneæ.	Hopeless.....	Hopeless.
6	4 weeks.....	Ulceration and perforation of left cornea.....	Favorable.....	Not stated.
7	.....	None.....	Favorable.....	Favorable.
8	3 weeks.....	Ulceration of left corneæ	Favorable.....	Opacity of cornea.
9	2 weeks.....	None.....	Favorable.....	Favorable.
10	9 weeks.....	Ulceration of corneæ...	Leucoma adherens.....	Leucoma adherens.
11	5 days.....	None.....	Favorable.....	Favorable.
12	4 weeks.....	None.....	Favorable.....	Favorable.
13	3 months.....	None.....	Favorable.....	Favorable.
14	6 weeks.....	None.....	Favorable.....	Favorable.
15	3 weeks.....	None.....	Favorable.....	Favorable.
16	5 weeks.....	Ulceration and perforation of corneæ.....	Macula cornea.....	Macula cornea.
17	2 weeks.....	None.....	Favorable.....	Favorable.
18	.....	None.....	Favorable.....	Favorable.
19	3 weeks.....	None.....	Favorable.....	Favorable.
20	2 weeks.....	None.....	Favorable.....	Favorable.
21	8 weeks.....	None.....	Favorable.....	Favorable.
22	.....	None.....	Favorable.....	Favorable.
23	1 year.....	Ulceration of corneæ...	Macula cornea.....	Macula cornea.
24	.....	None.....	Favorable.....	Favorable.
25	4 months...	Ectropion and ulceration of corneæ.....	Macula cornea.....	Macula cornea.
26	8 weeks.....	None.....	Favorable.....	Favorable.
27	3 weeks.....	None.....	Favorable.....	Favorable.
28	2 weeks.....	Ulceration of left corneæ.....	Favorable.....	Macula cornea.
29	.....	None.....	Favorable.....	Favorable.
30	3 weeks.....	Ulceration of corneæ...	Not recorded.....	Not recorded.

No.	AGE.	COMPLICATIONS.	RESULT RIGHT EYE.	RESULT LEFT EYE.
31	5 months....	Corneæ clear but lids granulated	Favorable	Favorable.
32	4 weeks.....	None	Favorable	Favorable.
33	4 weeks.....	Ulceration corneæ.....	Not recorded.....	Not recorded.
34	.....	None.....	Favorable	Favorable.
35	.....	Ulceration left corneæ.....	Favorable.....	Macula cornea.
36	.....	None	Favorable	Favorable.
37	6 weeks.....	Ulceration right corneæ.....	Not recorded.....	Favorable.
38	6 weeks.....	Ulceration right corneæ.....	Not recorded.....	Favorable.
39	16 months....	Ulceration of corneæ ...	Macula cornea.....	Macula cornea.
40	5 weeks.....	Ulceration of corneæ ...	Macula cornea.....	Macula cornea.
41	.....	None	Favorable	Favorable.
42	.....	None	Favorable	Favorable.
43	3 weeks	Ulceration and perforation of left corneæ.....	Favorable	Leucoma adherens.
44	2 years	Blind from ulceration & perforation of corneæ.....	Hopeless.....	Hopeless.
45	2 months ...	Ulceration of corneæ... ..	Macula cornea.....	Macula cornea.
46	4 weeks.....	Ulceration of corneæ.....	Not recorded.....	Not recorded.
47	.....	Blind from ulceration & perforation of corneæ.....	Hopeless	Hopeless.
48	2 weeks.....	None.....	Favorable	Favorable.
49	11 weeks.....	None.....	Favorable.....	Favorable.
50	4 weeks.....	Large ulceration & perforation of corneæ.....	Not recorded.....	Not recorded.
51	3 weeks.....	None.....	Favorable	Favorable.
52	3 months.....	None.....	Favorable	Favorable.
53	2 weeks.....	None	Favorable	Favorable.
54	2 weeks	Perforating ulcer of left corneæ.....	Favorable	Leucoma adherens.
55	10 days.....	None	Favorable	Favorable.
56	3 weeks.....	None	Favorable	Favorable.
57	7 days.....	None.....	Favorable	Favorable.
58	.....	None.....	Favorable	Favorable.
59	4 days.....	None	Favorable	Favorable.
60	8 months.....	Ulceration of corneæ... ..	Macula cornea.....	Macula cornea.
61	13 days.....	Ulceration right corneæ.....	Favorable	Favorable.
62	6 weeks.....	Central sloughing of corneæ.....	Macula cornea.....	Macula cornea.
63	2 years.....	Ulceration and sloughing of corneæ	Lencoma adherens	Lencoma adherens.
64	5 weeks.....	Ulceration and perforation left eye.....	Favorable	Hopeless.
65	7 months.....	Ulceration and sloughing of corneæ.....	Moderate vision.....	Hopeless.
66	12 days.....	Ulceration of corneæ.....	Favorable	Favorable.
67	.....	Left cornea ulcerated....	Favorable	Favorable.
68	2½ years....	Blind from sloughing of corneæ.....	Eye blind and staphylomatous.....	Eye atrophied.
69	4 weeks.....	Ulceration of corneæ... ..	Macula cornea.....	Favorable.
70	5 weeks.....	None.....	Favorable	Favorable.
71	2 weeks.....	None.....	Favorable	Favorable.
72	3 months....	Blind from ulceration & sloughing of corneæ.....	Eye atrophied.....	Eye blind & staphyl't's.
73	.....	None	Favorable	Favorable.
74	.....	None	Favorable	Favorable.
75	3 weeks.....	None.....	Favorable	Favorable.
76	.....	None.....	Favorable	Favorable.
77	.....	None.....	Favorable	Favorable.
78	.....	None.....	Favorable	Favorable.
79	9 days.....	None	Favorable	Favorable.
80	2 months....	Ulceration and sloughing of corneæ.....	Leucoma adherens, eye lost	Leucoma adherens, iridectomy & mod. res'lt.
81	4 weeks.....	None.....	Favorable	Favorable.
82	.....	None.....	Favorable	Favorable.
83	4 weeks	None.....	Favorable	Favorable.
84	3 months....	Ulceration and sloughing of corneæ.....	Leucoma adherens ch'ce for iridectomy.....	Leucoma adherens—hopeless.
85	.....	None.....	Favorable	Favorable.
86	3 weeks.....	Ulceration right corneæ.....	Not recorded.....	Favorable.
87	.....	Blind from ulceration & sloughing corneæ.....	Hopeless.....	Hopeless.
88	.....	None	Favorable	Favorable.
89	4 months....	Perforating ulcers of corneæ.....	Vision fair	Vision fair
90	.....	None.....	Favorable	Favorable.

NO.	AGE.	COMPLICATIONS.	RESULT RIGHT EYE.	RESULT LEFT EYE.
91	3 months....	None.....	Favorable	Favorable.
92	14 days.....	Small ulceration of each corneæ.....	Not recorded.....	Not recorded.
93	8 days.....	None.....	Favorable	Favorable.
94	7 days.....	None.....	Favorable	Favorable.
95	2 weeks.....	None.....	Favorable	Favorable.
96	10 days.....	None.....	Favorable	Favorable.
97	4 weeks.....	Ulceration right corneæ	Not recorded.....	Favorable.
98	2 weeks.....	None.....	Favorable	Favorable.
99	.....	None.....	Favorable	Favorable.
100	3 weeks.....	None.....	Favorable	Favorable.

In looking over the condition of the patients previous to the commencement of the treatment we find the following as the result.

Fifty-eight per cent. were free from corneal complication, while in forty-two per cent the integrity of the eye was more or less impaired.

Six per cent. were hopelessly blind in both eyes and five per cent. in one eye from ulceration and sloughing of the cornea. Of the latter five cases we find the other five eyes terminated as follows: one favorably, one with chance for iridectomy, one with moderate vision after iridectomy, two with leucoma adherens in which an iridectomy was followed by tolerable result in one, and the remaining eye was not operated on. So that of twenty-two eyes affected in these eleven cases only one recovered with good vision. Ten per cent. recovered with more or less extensive opacities of both corneæ and three per cent. with opacity of one cornea. Leucoma adherens of both eyes occurred twice and of one eye five times. The results in eleven cases are not recorded, five of central ulceration of both corneæ, one of ulceration and perforation of the left cornea, one of ulceration and perforation of both cornea, and four of ulceration of the right cornea. Good results are recorded as following once after central ulceration of both corneæ, once after ulceration of the right and once after ulceration of the left cornea.

Of the eleven cases, in which the results are not recorded, we may say that they were complicated by severe central ulceration of one or both corneæ, and that it would be unreasonable to expect all of them to make good recoveries.

All of the 58 cases which were seen before the cornea had become implicated, recovered with perfect vision. The treatment pursued in these was practically that described below as having been carried out in the Hospital. In none of them did the cornea become involved at any time during the course of treatment.

Now in contrast with this result I am able to present the statistics of one hundred cases of ophthalmia neonatorum

treated in the Cincinnati Hospital which were kindly collected for me by Dr. Watson. The record extends from March 2, 1871, to March 11, 1875, inclusive.

During this period one hundred cases were treated and in *not a single one* did any corneal complication arise and *all* recovered with good vision. They commenced as such cases usually do, and often many threatened to run a violent and destructive course, but under a simple but judicious treatment, were brought through to a favorable termination. We might reasonably expect, in the class of patients which we find in our hospitals, to have more trouble in the management of such a disease as purulent conjunctivitis than we would have in private practice.

We here look in vain for an explanation of the origin of this disease. The mothers are nearly all reported healthy. Six had offensive lochia after confinement, one had cystitis soon after delivery, one had erysipelas four days after confinement, three were anæmic, one had phthisis, one bronchitis, and one vaginitis. It is impossible to state how many may have had gonorrhœa at the time of confinement, but probably the number is not large. The greatest care is always exercised by the nurse in washing the child. The face and eyes were always attended to first and washed in clean water before the rest of the body was touched.

The infants were all placed in as nearly equally favorable hygienic circumstances as possible, and yet out of 726 born during the period above questioned 100 had purulent conjunctivitis in a more or less severe form.

The greatest number 47 occurred in 1872, against 20 in '73 and 14 in '74.

Season of the year, seems to have had but little influence, as the largest number occurred in June, (14,) January (13,) and July (12,) respectively, and the smallest number in February and November, 5 in each month.

The treatment of these cases which was carried out almost entirely by the internes under the supervision of the attending oculist on duty, was with little variation as follows:

The eyes were cleansed every hour or half hour or even oftener in cases where the discharge was very profuse by gently separating the eyelids with the fingers and removing the accumulated pus with a soft rag or camels hair brush. A solution of alum, gr. ij. ad. aqua ζ ss. or of argent nitr, gr. ij. ad. aqua ζ i. was dropped into the eye every hour or two.

My colleague, Dr. Aub, uses cold compresses, day and night, in the acute stages. While I am not partial to them in the

purulent conjunctivitis of infants, yet, I occasionally order them.

Every morning the eyelids were everted and brushed with a solution of argent. nitrat. grs. v. ad. xx ad. aq. dest. ij . according to the severity of the case, and the lids washed off with tepid water. Unless the swelling of the lids mechanically prevented it, the cornea was inspected *daily* in each case. As the case improved the interval between the instillations of alum and argent. nitrat. was increased, and finally discontinued entirely, but the argent. nitrat. was continued in a weaker or stronger solution, until every trace of the disease had disappeared.

The greatest stress was laid upon the thorough cleansing of the eye in the acute stages of the disease, and this was attended to not only by day but by night.

To this part of the treatment, do we owe the immunity of the cornea from ulceration. The pus is neutralized or coagulated by the action of the nitrat. and alum, and its corroding effects thus prevented.

Another important point in hospital treatment is that the cases receive attention *immediately* the slightest swelling of the lids is noticed and the severity of the disease is probably thus diminished.

When the lids are very much swollen their eversion is an easy matter. Slight pressure with the tip of the index finger, upon the lid near the edge of the orbit, will generally suffice, or a probe or the handle of a camels hair brush may be used instead of the finger. As the lids get thinner their eversion is much more difficult. Then it is better to seize the ciliae between the index finger and thumb, or, the loose skin near the margin of the lid, and draw it a little down and out from the ball, and at the same time make pressure upon the upper edge of the tarsus, which if properly directed easily everts it.

The best plan is for the operator to lay the child across the nurses lap and take its head between his knees, after first protecting them with a towel. In this way he can control the motion of the child's head most easily, and make the applications most effectually.

When a treatment so simple is followed by such excellent results, why is it that forty-two per cent. of those cases in private practice, no more severe in the beginning, than those in the Hospital practice, are followed by such disastrous results? There is nothing in the treatment which any intelligent physician could not carry out successfully, and yet they will neglect and slight them. An oculist can not be on hand to treat every case, and there is no need of one.

If purulent conjunctivitis was treated as promptly and carefully as other infantile diseases are, we would have fewer blind in our asylums, and much less suffering and distress to the world.

How few who visit our institutions for the blind ever think of the cause and prevention of the diseases which fills them. Sympathizing friends gaze upon the poor blind children as they move about, guided by their delicate sense of touch, and wonder why Providence should so afflict children who seem, otherwise, healthy and well developed. Generous donations often show how deeply these unfortunates excite the sympathy of those who can afford to be liberal to the afflicted. It is well, perhaps, that but few besides medical men can look behind the curtain to see the cause of all this trouble.

This is a question which belongs not alone to the medical profession, but to the public—to the tax-payer and to the Legislator. Many of these children are thrown upon the charities of the State for protection and education, at a heavy expense to the people. Could this expense be avoided, and the life-long affliction of the children prevented, by judicious treatment, certainly the State and the people would both be better off.

***Art. 2.—Electro-therapeutics—The Instruments Used—
Their Materials—Their Scope and Power, with Clinical Illustration.***

By Z. COLLINS McELROY, M.D., Zanesville, Ohio, Fellow of Zanesville Academy of Medicine, Member of Perry County Medical Society, Physician to the Home of the Friendless, etc., etc.

Reported at session of Perry County Medical Society, October 14, 1875, held at Junction City, O.

At your session in Roseville, last summer, I had the honor to read a paper on Electro-therapeutics, in which the different kinds of instruments in use were briefly described, and some illustrative cases were reported.

Since then I have given the subject such further attention as my time and opportunities have permitted, and it is my purpose to make another report to-day.

At the risk of some repetition—which I hope may not prove either unprofitable or uninteresting—I can best accomplish my ends by briefly calling your attention to the instruments again, for, it seems to me, that the first lesson of the medical electrician is the scope, power, construction, and materials of the instruments used.

The most common instrument in the hands of the profession in the country is the magneto-electric machine, consisting of a permanent magnet, or magnets, sliding helix, and coils of insulated wire, set in operation by simply revolving the insulated coils past the poles, by a crank motion. For the reason that they are operated by a crank, I designate them the *Grinding Machines*.

The force generated by them, or to speak more correctly, made available by them, for medical use, is Magnetic, wholly and entirely; otherwise called the induced, or Faradic current. Its physiological effect, ascertained alike by the simplest observation, as well as carefully conducted experiment, and its range of therapeutic application, is mainly limited to increasing muscular contractions. It is the "shocking" machine, *par excellence*, after the Leyden jar, of Franklinian electricity, or the electric current from friction. Remembering that the induced, Faradic, or magnetic current is confined in its effects, for the most part, to exciting increased activity of muscular contractions in living bodies, and limited in its results mainly to the parts to which it is directly applied, its range of application in the treatment of human sickness is seen to be very narrow. The tension of the current, or in other words, its velocity, is too high to be of much service alone in any case whatever. It must, therefore, take its place among scientific toys, or curiosities in our offices, useful mainly to astonish simple minded people.

The Electro-magnetic instruments of a quarter of a century ago, and still in use to a certain extent, differ from the grinding machines only in substituting for the permanent magnets, a weak galvanic battery, to do what the unfortunate PAYNE called "kicking up a fuss in the coils," and giving rise to the same magnetic current as the grinding machines, spending its force mainly in exciting muscular contractions at the points of application. In them there are generally two coils of insulated wire, of very different gauge, or size, and length. These coils are wound one over the other. The inner coil of rather coarse wire, and short length. Over this is a coil of fine wire of much greater length. At the point of union, between the secondary and primary, or coarse and fine wire coils, there is a vibrating armature, opening and closing the current with great rapidity, communicating a series of rapid shocks, varying in intensity with the position of the bundle of iron-wires, or soft iron rod, inside the inner coil.

Manufacturers have latterly placed on the markets, and thus in the hands of the profession, a style of electro-magnetic in-

struments under a new name, viz: Galvano-Faradic, claiming for them superiority over the old style electro-magnetic instruments. They differ, however, only in the greater number and length of coils, mechanical arrangement of parts, and means for applying currents to living bodies.

Partly on account of the resemblance between the sounds produced by the vibrating armature, and the wings of stinging insects, as well as from the sensations produced in living bodies in receiving their compound currents, I designate them "*Stinging Machines.*"

They all have one feature in common, and that is that they produce the induced, Faradic, or magnetic currents mainly; and as has already been stated, experiments have shown that these mainly influence muscular contractions. They have one common merit, and a very great one it is, all things considered and that is, they are portable. Some of them are elegant. It is to be sincerely regretted that they are not adapted to the treatment of a wider range of human ailments.

It is perhaps known to you all that there are but two primary currents—viz: the direct, or galvanic current, derived from the immersion of suitable plates in an acid, or saline bath, and the induced, Faradic, or Magnetic current, which is obtained by passing the direct current through a coil of insulated wire, with a bundle of iron wires, or soft iron rod, inside of the coil, which unites with the direct current, and greatly alters and intensifies its effects in living bodies.

The direct, or simple galvanic current, is the current of electrolysis, or chemical decomposition of compound bodies, inorganic, or organic. It varies in intensity with the extent of surface of zinc and copper, or other materials, exposed to the action of the acid, or saline bath, or contact. The greater the number of small plates, the greater the tension, or intensity of the current, up to the point of what is called the galvanic cautery, so useful in certain surgical proceedings now a days. From a single pair of small plates, say $4\frac{1}{2}$ or 5 inches long, by $1\frac{1}{2}$ to $1\frac{3}{4}$ inches wide, up to any number of such pairs, the quality and character of the current is the same; its only variation is in its quantity and velocity. The current varies with the materials in the plates, to some extent, in quality and velocity, at least in its therapeutical effects. But no matter how produced, it is the current of electrolysis, or electro-chemical decomposition of compound bodies. In other words, the current quickening the pace of molecular work in living bodies, notably in the interest of waste of existing tissue, though operating also in the interest of repair of wasting tissues, as it quickens the speed of all molecular work.

The induced, magnetic, or Faradic current, from one, or any number of coils, possesses the same character, and has the same influence, therapeutically, viz: increasing muscular contractions. This is made evident when the current is opened and closed in more or less rapid succession. If somewhat powerful, and the current is opened and closed rapidly, its influence on muscular activity amounts to clonic spasm, in addition to a series of disagreeable shocks.

The galvanic current is, like all effective work in nature, silent in its operation, giving rise to no unpleasant sensations, no matter how slowly, or rapidly, the current is opened or closed, except when the surface of application is too small for the quantity, or intensity of current, when there is a burning sensation on the skin, or other surface to which it is applied. This may, as it has in a few cases in my hands, readily produce vesication, and it does it very quickly, too, when the current is strong.

The united currents, as one or the other preponderate in the compound current, produce the effects of both in the ratio of their combinations, though the induced current cannot exist without the Galvanic. The Galvanic is the independent current.

In all the portable instruments there is just sufficient Galvanic action to give rise to the induced, or Faradic current, or currents, as the coil is simple, or complex; that is Galvanism is minus; magnetism, or induced current, or currents, plus, the very opposite of what it should be, and must be, to be successful in the hands of the many. The range of application for them is much wider than with the grinding machines, but they, one and all, as offered by different manufacturers and inventors, fall short, very far short of equipping the general practitioner for the practice of what is called electro-therapeutics, if successful treatment is aimed at in their use. In a word, the apparatus for the general practitioner has not yet been offered in our markets. I think it not improbable that Galvanic apparatus may yet be offered so cheaply, that when needed for persons who cannot, or prefer not to visit physicians offices, they will be bought by patients, just as they now get prescriptions filled, the practitioner carrying with him the coils, and means for its application only. It ought to be so now, for in a simple Galvanic battery there are no expensive materials, and no necessity for expensive mechanical work on them. The cup in use by the Western Union Telegraph Company, all over the United States, where their lines extend—the Callaud—can be delivered almost anywhere in the United States for less than

two dollars per cup, including the necessary connections between them; and four to six cups form a sufficiently powerful battery for all medical purposes, though not for the Galvano-cautery. It is emphatically the "ever-ready" battery, needing less attention, perhaps, than any other now known. They work continuously in telegraph offices about one year before a renewal of their essential parts of copper and zinc becomes necessary. All that they require is the occasional removal of the upper stratum of water charged with zinc sulphate, the addition of fresh water, and copper sulphate as needed. In them the copper and zinc are suspended in one glass vessel holding about a gallon. The zinc is in the form of a wheel, and is hung near the top of the cup. The copper is in three thin slips, rivetted together in the center, and spread out like leaves of a book, and lies on the bottom of the vessel, having an insulated wire running up the side of the vessel to connect with the zinc of the next cup. In an office or private dwelling, such a battery may be placed in any out of way place, on a shelf, in a cupboard, or cellar, or garret. The necessary insulated wire, screw clamps, etc., to connect the battery with a table, or stand, cannot add much to the expense. A suitable coil and means for practical application can hardly cost more than the battery, so that a really efficient battery, and means for its application can be had for from twenty to twenty-five dollars. The requisite skill for its application can only be had from physicians. I have dwelt on the Callaud battery somewhat, because I think it, or possibly some cheaper and better battery which may be devised, is infinitely better than any portable battery yet made for medical purposes. It supplies the galvanic current in much greater volume than any portable apparatus can, and it is with this that the most good can be done medically. All the portable apparatus supply only the Galvanic current needful for the production of the magnetic current, or currents, in the coils. The physician needs, not the magnetic, but the current of electro-chemical activity, in excess, in the bulk of cases proper for its use. And this is the galvanic current. There is magnetic current sufficient to rouse up muscular activity in an ordinary telegraph sounder. And this form of coil enables the operator at any time to assure himself of the actual working of the battery, and the character of the click is a very good index of the strength of the combined Galvano-magnetic current. I object to the portable apparatus in use, also, on account of the rapidity with which the current is broken and closed. Unless very weak, it is excessively disagreeable, and it does not seem

possible amidst such a hub-bub, to and fro—current, that as much good can be obtained in any case, as when the current is slowly interrupted, or, in some cases, not interrupted at all. The impression gains on me all the time that the disappointments met by the general practitioner in the use of electricity, are largely due to the defective apparatus in the really handsome portable form in which it is supplied to him by dealers. They doubtless do good in a certain range of cases, but their general applicability falls far below that which I have endeavoured to describe. Aside from the form of any apparatus, is the liability of all of them to get out of order, except the grinding—this seldom fails, if the crank is made to revolve. Some mechanical skill is needed to keep any of them in working order, for the most apparently trifling circumstances prevents their working.

Therapeutically, the Galvanic and induced currents, singly or combined, interrupted and continuous, do certain things in living bodies which it is not now possible to accomplish with known modes of “stored up force” in drugs or medicines. And the converse is also true, that certain things can be, and are done, by “stored up force” in medicinal substances, which it is not now possible to do with Galvanism or Magnetism. What Galvanism and Magnetism do do, I think of as quickening the pace of molecular work; and yet that concept does not cover the ground. To complete the conception must be added the modification of the mode of molecular works.

As illustrating one of the results of the latter kind, I submit the history of a case, kindly furnished me by Dr. J. F. Kennedy, of this city, at whose request I made the electrical application, and to one of his patients.

“George T., aged 10, obtained the following history from his mother. George went to visit an invalid aunt living in the country, about the 15th of May last, at that time was in his usual perfect health, weighing 89 pounds. He remained in the room occupied by his aunt almost constantly during his stay in the country, about eight weeks. His aunt died of consumption, and George returned home. I was called to visit him, 24th of July, 1875, and found him in the following condition: pain in the chest; feet and ankles swollen, though only slightly; dry, hacking cough; skin moist through the day, and sweats profusely at night; tongue slightly coated; appetite good; bowels constipated; pulse 130; sleeps almost constantly scarcely remains awake long enough to eat his meals; his mother thinks he has slept twenty out of every twenty-four hours since his return home; he is greatly reduced in flesh. Prescribed Calomel grs. iij, divided into three powders, to take

one every three hours till his bowels move. After his bowels moved, gave him Cod Oil, with Citrate Iron and Quinine, together with all the native wine he would take. Had his body sponged every night with diluted alcohol. This line of treatment was continued until 13th of August, without any improvement. Friday, 13th of August, took him to Dr. McElroy's office.

Weight 14th of August, 59 pounds.

"	21st	"	60½	"
"	28th	"	63	"
"	4th of Sept.,		66	"

From this date he continued to improve rapidly, and was dismissed 27th September, well."

The day the lad was brought to my office, he had a temperature of 103° F. Pulse 130. Skin dry and hot. He was stripped naked, except pants, feet placed in warm water, and received the Galvano—Faradic current in which the Galvanic action was plus, or in excess largely of the induced, or Faradic action. The last carbon plate of the battery (10 cups, plates, 1½x5 inches, immersed in saturated solution sulphate copper, 2½ inches), was connected with the foot bath. The zinc, after passing through the coil, was, by the usual flexible insulated cord, connected with a small piece of thin flexible brass, 2x1½ inches, wrapped in a small white flannel napkin, wet with plain water. This was applied to his head, back of neck, back and front of chest, and abdomen, and along the spine, a part of the time through my own person. He was in the circuit about 12 minutes. The current was through a short coil of moderately fine wire, and was not strong enough to be unpleasant, or alarm him when it was interrupted, which was done frequently, or from five to ten times per minute. At the time of making the application to the lad, I confess, I did not expect him to derive much benefit from it. I made it as much out of courtesy to Dr. Kennedy as anything else. The boy seemed to enjoy the thing while he was in it, though he was somewhat alarmed at being stripped. Still, I made the thing as jolly as I could, and kept him amused and smiling much of the time. And he seemed to enjoy it. He was to return for a second application in three days, but he never came back for another. Dr. Kennedy tells, he called for him at the appointed time, but found him unwilling to come. Said he had seen lightning, and felt queer all over when I applied it to him the first time, and he was afraid to go again. And as he seemed so unwilling the matter was postponed, and as his condition from day to day was so satisfactory, the subject was not mentioned to him again. Dr. Kennedy tells, that the sweating was much less the first night after the electrical ap-

plication, and ceased after the third ; that his pulse came down much lower than it had been ; that he did not sleep nearly so much ; did not have any pain in the chest ; his appetite became better from day to day, and that in fact, the electrical application made a complete and total change in the lad. If it was not that, there was, to say the least of it, a remarkable coincidence between the electrical application, and the turning point toward recovery. The interest of the case hinges largely on the view taken of its pathology. It had some features in common with what is called continued fever, though far from being a typical case. Some of its features are not often present in what we call typhoid fever. The somnolency and sweating were features pointing in another direction, as was, also the cough, constipation, and condition of nutrition. Without the close association with his dying Aunt, during two months, it would probably be regarded as an anomolous case of continued fever. But his close connection with his Aunt during the last two months of her consumptive life, points, it seems to me, unmistakably, to the real pathology of the case. Then his subsequent progress, until he came under the care of Dr. Kennedy, seemingly not changed by his professional interference, certainly not for the better, until after the electrical application. The state of the circulation, respiration and the temperature, on the day he received the electrical application, was such as might be expected on the 20th day of fever, providing it had been seen by Dr. Kennedy on its initial day. But Dr. Kennedy did not see it at its commencement, in all probability. Two weeks had elapsed since his return from the country, when first seen by Dr. Kennedy. His loss of weight was large, nearly thirty pounds, or one-third of his weight before going to the country. It seems to me the conclusion that he had, so to speak, become infected by his dying aunt, cannot be resisted. But I will not dwell on these points, seeing that the processes taking place in the bodies of those passing through the phenomena of typhoid fever, and tuberculosis, are identical in kind, but not in mode. Both wasting existing flesh by the process we call fever. But with this difference in modes. The wasting by that of typhoid fever, having the possibility of ultimate re-construction of the structures in normal molecular forms ; while with tuberculosis it is wasting with no probability of repair from new material, so as to regain health. The one tends inevitably to dissolution, the other to recovery. To my mind it is clear that the lad had what we call tuberculosis.

With this conclusion the importance of the results of the solitary electrical application assume very great importance.

Could the tide of life, so to speak, in the lad have been turned by any other known means so suddenly and sharply? Possibly so, possibly not. Probably not. The electrical application established at once the process of repair, for at the end of a week he has gained one and one-half pounds. At the end of two weeks, four pounds; and the third, seven pounds, or almost one-eighth of his weight in twenty-one days; a very remarkable gain.

I can even go farther, and explain more or less satisfactorily to my own mind how it was done. The tendency of effete products of the combustion, or waste of tissue, is to take crystalline forms, strikingly illustrated in calculous affections, tubercles, etc., so called. The conditions for their solution are absent often times; and the crystallisation is interstitial. That was probably the case with the body of the lad. The water, holding a certain quantity of saline matter in solution, which would probably have been sufficient for this purpose in a simple fever, escapes by the skin, leaving the crystals intact, and even enlarging each day. The electrical application, it must be remembered, was plus Galvanic—electrolytic—the current of decomposition of complex substances, with just sufficient magnetic action—the muscular contractor—to set these crystals in motion, to decomposition, and solution, and removal. The leaking at the skin ceases at once, the water hitherto escaping there, turned into other channels, and to perform its proper and important functions in the lad's body. Then repair becomes possible, and commences at once, and in twenty days he gains nearly one-eighth of his total weight. But this does not represent all of his gain. The waste, or removal of spoiled tissue, by the fever process, still proceeded, but this is made good, and the gain of seven pounds in total weight, represents so much additional.

The lad speedily regained his lost health, and, under the circumstances, could hardly have done otherwise. It does seem to me that the galvano-faradic action in this case was the direct and principal means of changing, in toto, the processes taking place in the lad's body, and there is not much probability that anything else could have done so, so promptly and effectually. I think that had the current been from one of the misnamed Galvano-faradic machines—in other words, mainly magnetic—the result would have been negative.

I confess I have learned something from this incident, which I hope to turn to the profit of other patients in the future.

1. From a rather close and extended study of the principles involved in the production and application of the galvanic and faradic currents, clinically, I am forced to conclude that there

is no form of portable apparatus offered in the market which places at the disposal of the actual, working practitioner, the quality of current needed in the successful management of the great bulk of cases coming under his care to which it is applicable, or in which electro-therapy is indicated. What he wants is the current of electrolysis, the current of chemical decomposition of compound bodies; for it will be necessary, in the main, to hasten the removal of effete matter—matter not available for the purpose of life—as well as the decay of tissue which has lost its dynamic capacities in living bodies, which is the real pathology of a large proportion of chronic cases which are or can be benefited by electricity.

2. That any really effective apparatus must, in the nature of things, be more or less complex, requiring a certain amount of mechanical skill to keep in order.

3. That applications through the hands and arms, by means of the tin or other metallic handles, always a prominent feature of the equipment of a portable machine, is, in the great bulk of cases, entirely useless.

4. That water is the electrode better than all others, except for cauterizing purposes, or application to extremely small surfaces. That any piece of bright and better flexible sheet metal, wrapped in wet cloth, preferably flannel, though cotton, linen, or silk answers very well, forms an electrode of the best possible character, better than metals or sponges.

5. That the feet of the patient, as a general thing, ought to be immersed in warm water, or placed on a wet napkin, for general applications, passing current from back of neck along spine; over chest, back and front, dwelling on parts tender or painful. The ceuben, or copper pole, at feet, zinc to superior parts.

6. That applications about the head must be cautiously made, as it is much more sensitive than any other part of the body, except the hands.

7. That applications altogether local are useful and necessary, but succeed better after general application than alone or singly.

8. That the class of cases most promising are those in which ordinary medicines have failed, and continue to fail, when given alone. But that the clinical case here reported will warrant its further application in acute stages of some kinds of sickness. Properly given, it seems to me they can do no harm.

9. That no application, whether general or local, should give rise to actual pain, or be unpleasant, if it is expected to do any good.

10. Electricity can be made to do the work of blisters, and other counter irritants, in some cases more pleasantly and speedily than counter irritants themselves, but does not supersede their use by any means.

11. That electro-therapy does not take the place or render unnecessary proper medicines, when indicated. It merely supplements their action, and makes their work more efficient.

12. For, there are but two possible effects which galvanic and magnetic action can have on living tissues, viz.: hurrying up, and modifying the speed and mode of molecular work. No material is supplied, only motion to existing material. As medicines represent "stored up force," so I think of electricity as naked force—force disconnected from matter, as it enters a living body.

Art. 3.—THE MIND.—Introductory Lecture, delivered at Starling Medical College, November 4, 1875.

BY D. A. MORSE, M. D., Professor of Nervous Disorders and Insanity.

WHAT IS THE MIND?—How is it related to matter? Is it a property of Matter? How are Mind, the Vital, and Physical Forces related? From what standpoint shall we study the mind—i. e., shall we pursue the Physiological or the Psychological Method?

GENTLEMEN :—In presenting an introductory to my course, I shall not apologize to you for having neglected to set forth, as if it was required, its merits, its claims upon the Professor, or its practical importance; to do so would create the presumption that otherwise it would not receive from you the attention to which it is entitled.

The frequency of nervous and mental disorders; the almost incredible expenditure of money by every nation for the treatment of this class of patients; the life-long earnest devotion of hundreds of our profession, exclusively to the study and investigation of these obscure and difficult subjects, changes to you, except you give them most thorough and careful examination, the burden of an apology.

The questions I have presented are those which, to-day, as in all the past of mental science, excite most attention, and from the fact that science cannot settle them, most controversy. I am not unmindful, that in selecting questions that have absorbed with so little success, the attention of so many thinking men, that my efforts will prove an elaboration of the subject to be considered, a multiplication of inquiries, rather than a so-

lution of mysteries, or a satisfactory reply to the questions presented; nor am I unmindful that however well discussed these great and interesting problems may be, the startling truth ever will confront us and declare that, when we pass from the world of Matter to the world of Mind, our proud intellects will be humbled with the conscious, impotence of finite mind, and its utter inability to penetrate the darkness that obscures the work of the Infinite, and discover the secrets of the Almighty.

The profound mystery of the union of Mind and Matter, of their intercourse, and of the influence of Mind upon Matter, has in all ages bewildered the most learned philosopher, and although his allotted three score years and ten have been passed in a survey of it, he has been able, as a result of his labors, to transmit to succeeding generations but his own inheritance. The simple fact, that apart from the phenomena of mind, the manifestations of mind, operating through its material instrument, we have no knowledge of mind, and that mind as a separate existence, when isolated from matter, is wholly a subject of Faith—dependent upon resolution. Man being adapted to a material universe, dependent upon a material organization, must be subject to the laws that govern the instrument upon which his mind acts to produce its phenomena, and it having power to reveal itself only through the co-operation of a physical world, it is not a source of astonishment that man, when engaged in a study of mind, in relation to matter, should become embarrassed and lost; and doubting the reality of what he cannot comprehend, despising the voice of Revelation, declare that he is a product of matter, a creature of blind necessity, exhibiting in his phenomena but a display of the laws of the physical world, thus identifying mind and matter.

With these views or theories I have no sympathy. To me it seems more credible, that all existing things had their origin in the operation of an intelligent First Cause than that matter organized itself into living forms, or that the forces supposed to be resident in it can be self-acting.

While this is the true line of demarkation which separates materialism from the Spiritual theories, the real battle ground of the philosophies, there are multitudes of other theories, that in past time have governed the productions of the most powerful intellects of the ages in which they lived. These views have been as numerous, as diverse, and as well defended as language would enable their respective advocates to render them; and in many of them we recognize not only the germ, but the fully mature views of writers of the present day. In

the views we cite, we use, as these writers themselves have done, mind and soul as indicating the intellect, whether correct or not.

Philosophy made its first start in Ionia, then a Grecian colony. From Ionia it extended to other colonies, and at last to Greece proper, where, in consequence of trouble with Italy and Persia, it was centered at Athens, and from this intellectual center radiated over all Greece. Philosophy found its origin in an attempt to determine the elementary principle of the world. The first notions were disseminated by oral teachings, and handed down by tradition.

Thales, B. C., 600, Miletus, in Ionia, was the first Grecian who applied reason to determine the origin of the world. He made experiments, and concluded that water was the original element, and spirit (ποῦς) the impulsive principle. From the action of the magnet, he inferred that everything had a soul and was full of divinity.

Pythagoras, B. C., 550, belonging to the same period, taught that mind and soul are emanations from the great central fire—the Sun. The Sun (the seat of Jupiter) was the most perfect object in Nature; the principle of heat, and consequently of life, permeating and vivifying all things. He regarded the soul as being in constant activity, capable of combining with any body, and compelled to pass through several successive stages. It is supposed that Pythagoras borrowed this theory from the Egyptians. (Herodt. ii-123.) Pythagoras is supposed also to be the first who attempted, rude as it was, an analysis of the operations and faculties of the mind. The intellect or understanding was located in the brain; the will and appetites in the heart. He made a distinction between the human and the animal soul.

Heraclitus, B. C., 500, attributed everything to fire—which he thought to be the elementary principle upon which every thing depended—the foundation of all things. He believed that all Force is identical—the principle physical force the same as that of thought. Here we find the germ of the doctrine, if not the doctrine itself, of the equivalence or correlation of force, i. e., that heat, light, electricity, chemical affinity,* vital force, and mind are identical, are but different modes of motion.

Moschus, B. C., 500, advocated what is known as the atomic theory. The elementary principles that figured in this system, were atoms, motion, and vacuum. The atoms are the ultimate elements of all that is real. They are invariable, indivisible, and imperceptible. They occupy space—are infinitely diver-

*Some of the writers exclude chemical affinity from the list.

sified—those that are round, possess motion. By their union all things have their origin, while their separation is dissolution. Their modification and properties are determined by the position and order of particles, and take place in obedience to a law of absolute necessity. This is a shadow of Huxley's Protoplasm, or Physical Basis of Life. The atomic theory was to some extent believed in by Sir Isaac Newton, who believed that between the atoms the imperceptible space was filled with a subtile ether. Hartly made this the basis of his Philosophy, A. D. 1749, and taught that vibrations of this subtile fluid caused the phenomena observed.

Amaxagoras, 500 B. C., taught the existence of the intellectual principle.

Democritus, the laughing philosopher, B. C., 494, taught the atomic theory of Moschus, expanded it, and extended it to the whole universe—embracing the heavenly bodies. The soul he believed to be composed of *fire*, in the form of globular atoms, which impart *motion to the body*.

Diogenes, B. C., 472, taught that air was the fundamental principle of all Nature. He imputed to it intellectual energy.

Archalaus, B. C., 472, believed all things were disengaged by two discordant principles, from Chaos. These principles were heat and cold, or fire and water.

Empedocles, B. C., 460, made four elements: earth, air, fire and water. The soul he located in the blood, and consisted in a union of these four elements.

Socrates, B. C., 470, regarded the soul as a divine nature; and on account of the power of reason and its invisible energy, thought it immortal. He was a powerful antagonist of the Sophists, who had an *apparent*, superficial knowledge, and who desired to distinguish themselves rather by the show of pretended knowledge, by raising ridiculous, fanciful, intricate, or useless questions, and tricks of logic, rather than by a desire to develop truth. This proved, however, the beginning of a more thorough investigation of the foundation on which philosophy rests, the Sophists compelling their opponents to adopt systematic methods of proof. The Sophists, like most of the Physiological School of the present day, attempted to so confound truth and error, to so explain away all foundations of truth, religion, and morality, that even the existence of things was doubtful. They declared that *nothing real exists*. Socrates encountered these men with only appeals to their good sense and consciousness of moral principles. He taught the duty of man towards himself and others, to his country, the practice of virtue and morality. His chief power to control the

masses lay in the affection of profound ignorance, and by his acute reasoning seemingly draw out the truth by almost imperceptible powerfully convincing advances. His popularity and success caused so great envy and hatred that he was put to death, B. C., 400, by Hemlock.

Plato, B. C., 430, was a Rationalist, and founded his system at the Academy at a time when reason was powerful, and the union of the Porch and Academy was approaching. His chief persuasive power, like Socrates, lay in his gradual approach to the truth, for which, as better suited to his purpose, he employed dialogues. He first taught the doctrine of *innate ideas* which Locke combats so vigorously in his *Metaphysics*. These innate ideas Plato regarded as the eternal type of things. Hence knowledge is not the result of experience but only developed by it. The soul he regarded as a self-acting energy, and as having an existence separate from the body. Virtue he defined to be imitation of God, perfect harmony resulting in no other way. We will give his views concerning the relation of soul and body hereafter.

Aristotle, B. C., 384, regarded the soul as the active principle of life. The soul is distinct from the body, but of the same form and inseparable therefrom. The faculties of the soul he regarded to be: Production, Nutrition, Sensation, Thought and Will, or Impulse. He is the first to recognize distinctly what metaphysicians term *Consciousness*. He discussed our means of knowledge, common sense, imagination, memory, and recollection. He blended all the forces as identical. He was the first who taught physiology.

Aristoxenus, B. C., 320, regarded the soul as a vital energy, inherent in the body, a *harmony* elicited from the body as those elicited from the chords of an instrument.

Epicurus, B. C., 337, advocated the atomic theory. He regarded the soul as material, its elementary principles are heat, and some nameless untangible ether spirit, upon which sensibility depends. This ether he thought to be dispersed throughout the body. In this we see the germ of Hartley's "vibrations." It is also in some respects the theory entertained by Sir Isaac Newton.

Zeno, B. C., 260, was a physiologist, and in his physiology taught that sensation and perception are the basis of knowledge—there are two eternal principles of all things: Matter, which is passive; and divinity, which is active; the source of all activity, another of form and arrangement. By this theory God is *in* the world, not *without*. Hence the world is a living being. This divine soul not only filled the world, but

all created things, and is the soul of man, is corporal and perishable. Zeno was a Stoic. This ended Grecian philosophy, or extended to the period of the new Academy when the Romans began to figure in it. Among the first of these to attract attention was Cicero, the orator. He left a number of works which throw more light upon the history of philosophy than add new lustre to it. He accepted mainly the views of Plato—was a Stoic in principle—as a man was moral in his private life.

Thus might we continue and multiply views, showing those entertained by the Jews, the Fathers of the church in the middle ages, passing on down to the philosophy of modern times. The writers of this period are numerous; in fact, so extensive is the literature of the last two or three centuries that, were you to attempt to wade through it, you would be discouraged at the onset by merely examining the list of more important writers. It is impossible to name a theory that some one has not advocated.

Sir John Davis, a writer upon the immortality of the soul, has in a short poem well expressed the variety and diversity of views entertained by writers, as well as the difficulty of presenting new theories:

“Musicians think our souls are harmonies;
Physicians hold that they complexions be;
Epicures make them swarms of atomies;
Which do by chance into our bodies flee.

“One thinks the soul is air; another fire;
Another blood diffused about the heart;
Another saith the elements conspire,
And to her essence each doth yield a part.

“Some think one general soul fills every brain,
As the bright sun sheds light in every star;
And others think the name of soul is vain,
And that we only well-mixed bodies are.

“Thus these great clerks their little wisdom show,
While with their doctrines they at hazzard play;
Tossing their light opinions to and fro,
To mock the lewd, as learned in this as they.

“For no crazed brain could ever yet propound,
Touching the soul so vain and fond a thought,
But some among these masters have been found,
Which in their schools the self-same thought have taught.”

Whilst it may be agreeable and interesting to study the past history of mental science, and as metaphysicians roam in imagination through the broad universe constructing theories that will explain its origin and that of mind, or ex-

ploding theories of others as to the nature of the mind, we must proceed to consider the more important matter of the lecture.

As our questions intimate, there are two antagonistic, or essentially different methods of investigation of mental activity, two distinct schools. We say antagonistic, for by their respective adherents they are made such, but by a true method they become each the counterpart or interpreter of the other. These are the *physiological* and the *psychological methods*.

The physiological school bases its theories upon the anatomy and physiology of the brain; to them mind is but the result of careless organization. Cabanis taught, and many of this school and after him, that the brain secretes *mind* as the liver bile, and that a diseased brain gives rise to the diseased mind in the same way that a diseased liver or stomach gives rise to deranged secretion.

Bain, a distinguished writer of this school, advances the following as evidences that the function of the brain is to produce mind. He says:

“The brain is the principal, although not the sole organ of mind, and its leading functions are mental. The proofs of this position are these:

1. “The physical pain of excessive mental excitement is located in the head. In extreme muscular fatigue, pain is felt in the muscles; irritation of the lungs is referred to the chest, indigestion to the stomach, and when mental exercise brings on acute irritation, the local seat is the head.

2. “Injury or disease of the brain affects the mental powers; a blow on the head destroys consciousness; physical alterations of the nervous substance, as seen after death, are connected with loss of speech, loss of memory, insanity, or some other mental deprivation or derangement.

3. “The products of nervous waste are more abundant after mental excitement. These products, eliminated mainly by the kidneys, are the alkaline phosphates combined in the triple phosphate of ammonia and magnesia. Phosphorus is a characteristic ingredient of the nervous substance.

4. “There is a general connection between the size of the brain and mental energy; in the animal series intelligence increases with the development of the brain. The human brain exceeds the animal brain, and the most advanced races of men have, as a general rule, brains of an unusual size. The average weight of the brain is 48 oz; the brain of Cuvier weighed 64 oz. Idiots commonly have small brains.

5. "By specific experiments on the brain and nerves, it is shown that they are indispensable to the mental function." Hence the conclusion that mind is the result of cerebral organization. In it we see only what is admitted by the Psychological school as evidence that the brain is the organ or the instrument of the mind.

Prof. Leibig, an advocate of the views of this school, declares that "in the universal body we recognize as *ultimate cause of all force* only one cause, the *chemical action* which the elements of the food and the oxygen of the air mutually exercise on each other. The only known ultimate cause of vital force, either in animals or in plants, is a *chemical process*. If this be prevented the phenomena of life do not manifest themselves."

Prof. G. F. Barker, of Yale, in a lecture on the Correlation of the Vital and Physical Forces, in 1870, said: "No doubt can be entertained that the actual energy of the muscle is simply the converted potential carbon of the food. A muscle, therefore like a steam engine is a machine for converting the potential energy of carbon into motion." He says: "Chemistry teaches that though force, like muscular force comes from food, and demonstrates that the force evolved by the brain like that produced by the muscle comes not from the disintegration of its own tissue, but in the converted energy of burning carbon. Can we longer doubt then, that the brain, too, is a machine for the conversion of energy. Can we longer refuse to believe that our thought is in some mysterious way correlated to the natural forces? And this even in the face of the fact that it has never yet been measured?"

When I was a student I was taught to believe in the existence of vital force, the *anima* of Stohl, the *vis medicatrix natural* of Cullen, the so-called *conservative power of nature* of other writers. This doctrine as taught by the physiological school does away with this force, substituting chemical action. Virchow says, "The old doctrine of a vital power is a pure superstition, a doctrine of the devil, a search after the philosopher's stone." I must confess that I am in this respect very superstitious, and recognize in his assertion how difficult it is for a man to get free from the innate sense of a spiritual existence, for even in this he attributes it to the *devil*. Is his devil also the result of chemical action—oxygen and sulphur, *burning brimstone*? If matter and force alone exist where does he borrow his devil from? A singularly unique spiritual existence!

Carl Vogt, after repeating the views of Cabanis, says: "The appeal to a vital force is merely a periphrasis of ignorance.

It constitutes one of those back doors of which there are so many in science, and which are the constant refuge of indolent minds who will not take the trouble to investigate what appears incomprehensible, but are satisfied with accepting the miracle."

Dr. Louis Buchner, on Force and Matter, says: "The notion of a vital force is reduced to a walking shadow, and exists only in the brains of such individuals as have lagged behind the sciences. All those who have specially studied any branch of natural science touching the organic world, agree now in regard to vital force, and the term itself has become so obnoxious that it is rarely used."

This is necessary before the views of the Physiological school can be admitted, for to acknowledge a vital force destroys the whole theory. But to assert there is no such thing as vital force, and to demonstrate the truth of such assertion, are two entirely different things. The more you study the claims of this school the more thoroughly will you be convinced that the basis of all its teaching rests upon mere assumption—a begging of the question, a reasoning *petitio principii*. They make great claims for it that it rests upon experiment, observation and experience; to assert that there is mind and vital force is in no way disproved by asserting there is *not*. Has experience demonstrated in any other manner a negative result?

I am aware that it is not popular to teach the antiquated doctrine of a vital force. Yet, notwithstanding this, I cannot accept, until it has been proved, the assertion as true that the physical, vital and mental forces are identical.

According to Youman, heat, light, electricity and magnetism, which were treated of by the old writers as imponderable agents, are now no longer regarded as independent existences—subtile fluids with peculiar properties, but simply as modes of motion in ordinary matter; forms of energy which are capable of mutual conversion. Heat is a mode of energy manifested by certain effects. It may be transformed into electricity, which is another form of force producing different effects. Thus electricity will generate heat, and heat when operating upon a combination of metallic plates will produce electrical action. A given amount of one force produces a definite amount of another. The assertion that mind and these forces are identical, cannot be demonstrated as true by this test, for no thought has been transformed into electricity; nor has heat, light, or electricity ever been exhibited as the equivalent of a definite amount of mental force. It may be

assumed but never can be proved, nor can it be proved that vital force and mind are identical. There is much greater resemblance between nerve force and electricity than between mind and vital force. Thus the muscle with each contraction gives off electricity and as exhaustion follows ceases to show its presence.* This force, whatever it is, is closely allied in its nature to electricity. Yet that it is not electricity is shown by the fact that when sufficient time has elapsed after death for muscular contractility to cease, no current however strong will elicit a response from the then dead muscles. There was a force present that electricity could stimulate to activity, yet when absent renders electrical action without effect. We know that electricity will call muscle into play, will excite the sensory organs, causing light, smell, taste and sound to be perceived, yet we have no evidence that it will produce thought. It will give rise to physical activity but not mental in the same manner. Thought follows no known physical law. A single thought, expressed perhaps months or years before, looming up in consciousness is often more powerful than all else in producing physical activity, yet it is not uniformly correlated in physical effects. Thus, what will cause one man to swear, stamp and gesticulate furiously, will not perhaps have any effect upon another, while a third may suppress, by an effort of the will, the rising storm. If we interrogate consciousness it responds that volition, the will power of the Ego, alone can suppress emotion and calm the tempest of passion. Passion may be excited, the emotions almost uncontrollable as it were, yet some self-determining power says peace, be still; and immediately there is a great calm. Here is a force that controls other forces. It is self-acting and self-determining. If nerve force be electricity, and will power identical, why is it that outside of the human brain they never act in this manner? If you determine that mind and the motor power of the nerve centers that administer to voluntary motion are the same, what do you do with involuntary muscular action, as the contraction of the heart, intestines, stomach, arteries, gland ducts, etc? Are you prepared to admit that vital force, that hidden power which develops all living organisms, which rears the superstructure of the body from a simple cell, moulding and fashioning matter to a definite form, in conformity to some original type, is but the adventitious operation of heat, light or electricity, and differs from these other forces but in its "mode of motion?"

* Radcliff claims that contraction results from the discharge of electricity, and not *vice-versa*.

Prof. Huxley, in his *Physical Basis of Life* (1870), sets forth the view that matter and life are inseparably connected. He claims that all bodies have some one kind of matter that is common to all,* and that their endless diversities are bound together by a physical, as well as an ideal, unity; that the mould upon the bread crust, the lofty California pine, or Indian fig tree which covers acres, the tiny animalcule of stagnant water, and the mighty leviathan of the deep, man, lord of creation, and the beast that bears him on his journey, are all moulded from the same matter of life; that there is a unity of power or faculty, a unity of form, and a unity of substantial composition. The matter of all bodies is the same in kind when traced back to its earliest state. This matter he terms "Protoplasm." He declares this Protoplasm, or *Physical Basis of Life*, to be the clay of the potter, separated by artifice, and not by nature, from the commonest brick or sun dried clod.

But here Prof. Huxley loses sight of a very important fact, when he asserts that all living forms are of the same fundamental character, and may be likened to the clay in the hands of the potter; for he asserts that all *vital action* is but the result of the molecular forces of the *Physical Basis*, and further concludes, that all *thought* is but the expression of molecular changes in the matter of life, which is the source of all vital phenomena. Now, the moulding force and the clay moulded are not the same—the clay does not resolve itself into the baked and painted forms, but is moulded by an external force. Were we to analyze the clay, the paint, or the baked ware of the potter's shop, our conclusions would be as sensible concerning the force that moulded it as are those of Prof. Huxley, in asserting that the phenomena of life are self-directing, and belong to the oxygen, hydrogen, carbon and other elementary compounds which enter into the composition of the body, and are said to have inherent to them the properties of vital and mental phenomena. His illustrations are most unfortunate for his theory, as they nearly always are when an attempt is made to set aside the Creator and substitute *Force*. They generally disprove what they set out to prove. If we make any inferences whatever from his illustrations, they certainly prove the contrary of the theory they are intended to sustain.

Prof. Huxley declares that, under whatever disguise the *Physical Basis of Life* may take refuge, whether fungus or oak, worm or man, the living protoplasm not only ultimately dies,

*Expressed by Agassiz in 1848, in a lecture at the Lowell Academy.

and is resolved into its mineral and lifeless constituents, but that these are the same and differ only in the manner the atoms are aggregated. Cooked meat he calls modified protoplasm and says of it, that it has only been altered, but not rendered incompetent to resume its old functions as matter of life.

He says: "*a singular inward laboratory dissolves a portion of this modified protoplasm, the solution so formed will pass into my veins; and the subtil influences to which it is then supplied will convert the dead protoplasm into living protoplasm and and thus transubstantiate sheep into man.*"

He claims that the matter of life, i.e., that from which all organized beings are formed, is identical, and that their respective organizations are due to the forces of the molecular basis. What is this "singular inward laboratory" to which he refers, and the "subtil influences" to which digested food is subjected that converts it into living organisms? is it not vital force? I will not contend that all flesh when deprived of vitality may or may not be resolved into some like, simple element. But, if all originate from the same basis and the forces of this molecular basis operate to form the various vegetable and animal organisms, why does this same force from the same matter of life construct an animalcule and a whale? why does one part form the minute odium albicans, and another the white oak tree? Is not the difference in the flesh of man and other influences due to the "subtil influences" to which it is subjected in the organism? It never is observed elsewhere, and shows that this "subtil influence" is a property of the *organization*, and not for the original matter entering into it, and that it never assumes the character of the material substance composing the organization, until it has been subjected to its influence, or the influences of the forces belonging to the organization. This power to assimilate new matter to itself gives to all organizations that character we term life. Inorganic matter seems to be endowed with properties in some respects similar to organic. Thus the crystal will form from its mother liquor, each metal according to a definite form, and seems to obey the same law that operated to construct the body. But the force that constructs the crystal and that which constructs the body differs in this: you cannot remove it from the metal—a very slight cause often drives vital force from an organized body. Break a crystal, or piece of marble into many fragments and each preserves its integrity. Remove a portion of an organized body and it immediately undergoes change. To maintain its integrity it must remain in an intimate union with the body from whence it derives vital power.

If transformed into the substance of any other organism, this takes place only when brought under the "subtile influences" of the "singular inward laboratory," Nature has provided in such organism.

Prof. Huxley says: "If I sup upon lobster this same matter of life becomes a part of humanity. Were I to be shipwrecked and this action reversed, the same lobster might return the compliment by converting humanity into a crustacean." This in no way proves that lobster and man are identical organizations, or that the forces of the molecular basis make this transformation, but it clearly shows that the forces peculiar to the organism of each, accomplish it.

The great effort of so-called scientific men of the present day, is to decry revelation and faith, and base everything upon *experience*. Observe, as long as you will, the transformation of the matter of one organization into that of another, and your experience throws no light upon the nature and source of the forces operating, further than the phenomena resulting from their activity. If there is no such thing as vital force, what originates chemico-vital action, and what arrests it? Why will it not proceed as well in, what we term, a dead body, as in a living one? Simply, because something is wanting in the dead body that is supplied in the living one. This invisible something does the work. Must we remove it from the body, hold it up to public gaze before its existence will be acknowledged? Is this to be the test of all our knowledge? Must all faith be forever obliterated, and the word become obsolete? If all our belief is thus subject to experience, how meagre will be our stock of knowledge.

An amusing application of this theory occurred a few years since, at a ministerial association held at Danville, Ills. A good brother, who had been reading some of this class of writers, who rest upon experience, declared that he preached only what he had personal experience to confirm. Some one inquired if he ever preached the doctrine of the final resurrection of the dead. The good brother was greatly mortified at the failure of his theory. Thus it is with all who attempt to construct theories that will set aside the Creator, and elevate the phenomena of matter to His place. We are glad that men, of equal intellectual capacity, with more expanded reasoning faculties, interpret nature differently. Beale: Life, Matter and Mind; p. 4, says: "He, who chooses, may accept upon faith as an article of belief that all the action of living beings are due to ordinary forces only; but it is absurd to put forward such conclusions, as if it had been proved, or as

if it were capable of proof." On page 130, he says: "All the energy, authority and influence this school can bring to bear will not succeed in forcing thoughtful and intelligent people to accept such assertions. What strikes one as most wonderful is, that any one should try to make people believe that ordinary force can form, or has formed, mechanism, or other things in this world capable of working or action."

Do you believe in this doctrine: That in all this fair earth no evidence exists of an intelligent cause that directs the forces? Do you believe that the lightning, which, it is said, Franklin tamed, and which Morse taught to write, and which, amid the terrors of the storm, speaks of the power and glory of God, is the same blind force that reared your frame from the dust of the earth, moves your body as a nerve force, warms it, thinks, feels, reasons, and wills for you?

No one disputes that all the ordinary forces operate in the living body, but they operate only in a body said to contain life, for this alone can utilize them. The presence of another and higher force seems necessary for the proper action of the physical forces. Life is an independent force, like mind—a force resident in the organization—at times but a transient tenant. When vital force ceases to operate, the physical forces are powerless. When vital force is active in a plant, the sunlight decomposes the compounds which nourish it—carbonic acid releases its carbon, which is deposited in the plant. Remove this force, and the sun shines in vain upon it. The grain of corn, planted beneath the sod, puts forth its sprout before sunlight falls upon it. Stored up with the germ is sufficient nutriment to maintain its growth until it appears above the surface. When this store is expended, sunlight is needed to decompose the compounds that shall nourish it. We say Nature provides this energy; the materialist says it is the molecular basis that affords this power. The materialist urges that mind exhausts nerve force, and that nerve force wears out the body: Steam wears out an engine—is steam, therefore, a property of the engine?

In order that you may be enabled to compare the views of the two schools, I will present in brief the argument upon which they rest their theories. First, that of the Physiological—then that of the Psychological school:*

The Materialist believes not in the separate existence of mind, but says that we know only of its existence by its manifestations; that experience alone must be our instructor, and that of a mind acting apart from matter, we have no experi-

*On the relations of soul to matter, see Porter's Human Intellect, pp. 16 to 40.

ence. As we have before stated, the fact that we have no such experience, is not conclusive evidence that mind can not so exist. It rather tends to show our limited knowledge, than the contrary.

Another argument advanced is, that mental power is developed only in a degree that corresponds with that of the physiological and anatomical development of the cerebral structures. Growth of mind keeps pace with growth of brain. Matured mind is only functional activity belonging to a fully developed cerebral organization.

Again, it is alleged that the mind receives its store of knowledge through the senses—hence the mind is dependent wholly upon the body. The eye gives knowledge of light, color, distance; the ear of sound; the nerves convey ideas of resistance, extension, weight. The destruction of a single organ of sense deprives the mind of all knowledge to be obtained in that direction. As the organs of sense are one by one destroyed, so does the possibility of the mind diminish for the acquisition of knowledge. This goes farther than Locke and the Sensual school, who declared that there is nothing in the mind that has not first been in the senses. It shuts off all upon which the Mystics rest in their philosophy—i. e., that the mind may be in direct communion with God, and receive direct revelations of his will. It reduces the mind to a compound body, composed of the senses, or makes it but the sum total of them, for, however else they may explain it, according to this theory we have no knowledge of mind further than that learned by the exercise of the senses, and in proportion as they are wanting, so is the evidence of mental existence diminished. For it is clear by this process of reasoning that the organs of sense are not servants of the mind, but mind itself. By it, if the organs of sense did not first act, there would never be mental activity, and there would be increased mental activity in proportion as the senses are stimulated.

It is true that the main process of developing the idiotic mind is through the senses, and unless aroused through them can never be aroused. If we regard the senses as only outposts where sentinels are placed who give the mind notice within of all that is observed without, then it in no way follows that they are other than sources of information.

Again, and this is the strongest argument that is advanced, the materialist urges that mind is a property of brain, for the reason that all changes in the brain affect mental activity. A change in the circulation, either congestion, loss of blood, or a blood stream loaded with impurities; pressure upon the

brain substance; the irritation of inflammation; a disturbance in remote organs, suspends or modifies mental action.

The advocates of this theory claim for it that it is but the extension of ordinary physics to the brain. Thus low in the order of nature we have the attraction of gravitation and of cohesion. A little higher, chemical affinity, chemical action and combination. By chemical laws bodies are called into existence that had no existence before—thus sulphuric acid, a violent poison, may unite with magnesia, a compound unlike either, a new organization as it were. The lower bodies are regulated by mathematical laws, which is mainly force of gravity, and the higher by physical, which become more and more complete as we ascend in the order of nature. Thus, as we ascend from the attraction of simple particles of matter, as in cohesion, we next find the formation of crystals, still, however, obeying mathematical laws, in always assuming definite forms. To follow out the theories of this school, we must still extend this to the development of cell life and activity—to animal existence, and the functional activity of every organ of the body.

Such are the grounds upon which rest the theories of the physiological school, who claim that a cabbage head differs only in degree, not in kind, of energy, from the heads of those who accept its teachings.

But, however exclusive and one-sided the views of this school may be, they have accomplished much for science, by inciting observation, experiment, and research.

The Psychological school regards man as an intelligence, served by organs. In metaphysics they are termed *dualists*, because they regard the mind as an entirety—i. e., mind and body as two distinct organizations. This class includes those who accept the teachings of Revelation. They also believe in the immortality of the soul. There are many who believe that the mind is a property of brain, who claim that if man has a soul it is something distinct from the mind. But a soul without a mind is something inconceivable to us. The common view of the relation of mind and body is well illustrated by Plato, in the dialogue of Socrates and Alcibiades, first Alcibiades. I give it as furnished by Sir William Hamilton:

Socrates. Hold, now, Alcibiades, with whom do you at present converse? Is it not with me?

Alcibiades. Yes.

Soc. And I also with you? *Alc.* Yes.

Soc. It is Socrates, then, who speaks? *Alc.* Assuredly.

Soc. And Alcibiades who listens? *Alc.* Yes.

Soc. Is it not with language that Socrates speaks?

Alc. What, now? Of course.

Soc. To converse and to use language, are not these, then, the same? *Alc.* The very same.

Soc. But he who uses a thing, and the thing used, are not these different? *Alc.* What do you mean?

Soc. A currier—does he not use a cutting knife and other instruments? *Alc.* Yes.

Soc. And the man who uses the cutting knife, is he different from the knife he uses? *Alc.* Most certainly.

Soc. In like manner the lyrist—is he not different from the lyre he plays on? *Alc.* Undoubtedly.

Soc. This, then, was what I asked you just now—does not he who uses a thing seem to you always different from the thing used? *Alc.* Very different.

Soc. But the currier—does he cut with his instruments alone, or also with his hands? *Alc.* Also with his hands.

Soc. He also uses his hands? *Alc.* Yes.

Soc. And in his work he uses also his eyes? *Alc.* Yes.

Soc. We are agreed, then, that he who uses a thing, and the thing used, are different? *Alc.* We are.

Soc. The currier and the lyrist are, therefore, different from the hands and the eyes with which they work?

Alc. So it seems.

Soc. Now, then, does not a man use his whole body?

Alc. Unquestionably.

Soc. But we are agreed that he who uses, and that which is used, are different? *Alc.* Yes.

Soc. A man is, therefore, different from his body?

Alc. So I think.

Soc. What, then, is man? *Alc.* I can not say.

Soc. You can at least say that the man is that which uses the body? *Alc.* True.

Soc. Now, does anything use the body but the mind?

Alc. Nothing.

Soc. The mind is, therefore, the man.

Alc. The mind alone.

A French writer, Gatiien Arnoult, makes the following appeal to experience:

“I turn my attention on my being, and find that I have organs, and that I have thoughts. My body is the compliment of my organs; am I, then, my body, or any part of my body? This I can not be. The matter of my body, in all its points, is in a perpetual flux—in a perpetual process of renewal. I—I do not pass away, I am not renewed. None, probably, of the molecules which constituted my organs some years ago

form any part of the material system which I now call mine. It has been made up anew; but I am still what I was of old. These organs may be mutilated; one, two, or any number of them may be removed; but not the less do I continue to be what I was—one and entire. It is even not impossible to conceive me existing, deprived of every organ. I, therefore, who have these organs, or this body, *I* am neither an organ nor a body.

“Neither am I identical with my thoughts, for they are manifold and various. *I*, on the contrary, am one and the same. Each moment they change and succeed each other; this change and succession takes place in me, but I neither change nor succeed myself in myself. Each moment I am aware or am conscious of the existence and change of my thoughts; this change is sometimes determined by me, sometimes by something different from me; but I always can distinguish myself from them—I am a permanent being, an enduring subject, of whose existence these thoughts are but so many modes, appearances, or phenomena; I, who possess organs and thoughts, am, therefore, neither these organs nor these thoughts. I can conceive myself to exist apart from every organ; but if I try to conceive myself existent without a thought, I am unable. This or that thought may not be perhaps necessary, but of some thought it is necessary that I should be conscious, otherwise I can no longer conceive myself to be. A suspension of thought is a suspension of my intellectual existence; I am, therefore, essentially a thinking, a conscious being; and my true character is that of an intelligence, served by organs.”

Arbuthnot in a poetical way presents the same ideas:

“What am I, whence produced and for what end?

Whence drew I being, to what period tend?

Am I the abandon'd orphan of blind chance,

Dropp'd by wild atoms in disordered dance?

Or, from an endless chain of causes wrought,

And of unthinking substance born with thought.

Am I but what I seem mere flesh and blood,

A branching channel with a mazy flood?

The purple stream that through my vessels glides,

Dull and unconscious flows, like common tides.

The pipes, through which the circling juices stray,

Are not that thinking *I*? no more than they;

This frame compacted with transcendent skill,

Of moving points, obedient to my will;

Nursed from the fruitful glebe, like yonder tree,

Waxes and wastes—I call it mine not me.

New matter still the mouldering mass sustains;

The mansion chang'd the tenant still remains;

And, from the fleeting stream, repaired by food,

Distinct, as is the swimmer from the flood.”

The Psychological school, like the physiological, views but half the subject. It maintains that no study of the brain, however far it may be carried, chemically, anatomically, or physiologically, can throw any light upon the mysterious union of mind and matter. It studies only the *agent*. The physiological school ignores the agent, admits no intervention of creative intelligence, divine, initiative, nor human free will; it denies all intelligent providential law, confounds *subject* and *object*, and satisfies itself with an analysis of the instrument, rather than aspire to a knowledge of the agent. It rejects the voice of conscience and of intuition, and has been likened by Joseph Mazzini to the man who analyzed the ink with which a poem was written, and declared that he had discovered the secret of the genius who wrote it.

The psychological school regards the mind as a distinct existence, and the nerves and senses as only so many gates through which knowledge enters to it. Their arguments are that the phenomenon of mental action are unlike the phenomenon which belong to matter. The phenomenon of material substances can be reduced to a common basis—they are discerned by the senses. They can be felt, seen, tasted, touched, and measured. Mental phenomenon are known only in consciousness—they can not be measured, weighed, touched, or tasted. They are wholly unappreciable by the senses. The phenomena of matter, as motion, taste, color, weight, density, sound, etc., can be appreciated by the senses. But who can measure the volume, weight, density, or velocity of thought? Electricity, heat, light, and chemical affinity, obey their respective laws, but what code of laws will regulate a train of thought, or govern the production of a single idea? The physical forces are identified with the presence of matter, and have besides well known definite relations with matter. Thought, though dependent on the brain, can not be recognized as having a single property that characterizes these forces. The mind can recognize its own states, and distinguish its own action from that of every force around it. This is what is meant in metaphysics by the term *consciousness*. In consciousness we recognize the fact that, while heat or electricity can be conducted from one body to another, the mind retains its own identity, its productions are not capable of being conducted away, nature having made no bridge over which a thought can be carried from one mind to another. In conscious mental action we learn that the mind is not the body, but distinct from it—its master, the mind can act in opposition to all the physical forces to a certain extent, and even vital force, as in resisting

the tendency to sleep, or fatigue, and in many ways assert its independence and separate existence. The mind is a controlling, self acting power, matter inert. The energy that induces mental action is within, it can resist, or elect to act, through volition, under the influence of external influences, recognizing this influence, hence rendering Consciousness the most credible witness introduced by either school. Writers of this school have advanced many theories to explain the union, or intercourse of mind and matter, and our lecture would be very incomplete without we presented the main doctrines, presented to explain this relation.

Laromiguiere, "*Lecons de Philosophie*," has presented the theories of the Dualists under four heads:

1st. Of the system of assistance or of occasional causes ; 2d, of the pre-established harmony ; 3d of the plastic medium ; and 4th of physical influence.

1. The first, or doctrine of Divine assistance maintains that there can be no possible communication between mind and matter. This was taught by Descartes, De la Forge, and Malebranche. It asserts that when there is motion in the bodily organization, God excites in the mind corresponding representations. When thoughts arise in the mind, He expresses them by a corresponding movement in the body.

God, according to the advocates of this scheme, governs the universe, and its constituent existence, by the laws according to which He has created them ; and as the world was originally called into being by a mere fiat of the divine will, so it owes the continuance of its existence from moment to moment only to the unremitted perseverance of the same volition. Let the sustaining energy of the divine will cease, but for an instant, and the universe lapses into nothingness. The existence of created things is thus exclusively maintained by a creation, as it were, incessantly renewed. God is thus the necessary cause of every modification of mind, and His efficiency is sufficient to afford an explanation of the union and intercourse of extended and unextended substances.

"External objects determine certain movements in our bodily organs of sense, and these movements are, by the nerves and animal spirits propagated to the brain. The brain does not act immediately and really upon the soul ; the soul has no direct cognizance of any modification of the brain ; this is impossible. It is God himself who, by a law which he has established, when movements are determined in the brain, produces analogous modifications in the conscious mind. In like manner, suppose the mind has a volition to move the arm ; this

volition is, of itself inefficacious, but God, in virtue of the same law, causes the answering motion in the limb. The body is not, therefore, the real cause of the mental modifications; nor the mind the real cause of the bodily movements. Nevertheless, as the soul would not be modified without the antecedent determinations of the soul—the changes and determinations are in a certain sort necessary. But this necessity is not absolute; it is only hypothetical or conditional. The organic changes, and the mental determinations are nothing but simple conditions, and not real causes; in short they are occasions or occasional causes.”

The sum of this, the Cartesian view, is that God is the only real agent in the universe.

II. The second system is that taught by Leibnitz. This denies not only all connection between spiritual and material substances, but between all substances. The author of this hypothesis, who also maintained the view that man is composed of monads, explains the apparent communion of mind and matter, from a previously decreed mutual adaptation and co-arrangement of the Creator. This is the doctrine of pre-established or pre-determined harmony.

Leibnitz reproaches the Cartesians with converting the universe into a perpetual miracle, and of explaining the natural, by a supernatural order, this would annihilate Philosophy; for, Philosophy consists in the investigation and discovery of the Second Causes which produce the various phenomena of the universe. You degrade the Divinity, adds Leibnitz, you make Him act like a watchmaker, who, having constructed a time piece, would still be obliged himself to turn the hands, to make it mark the hours. A skillful machinist would so frame his clock that it would go for a certain period without assistance or interposition. So when God created man, he disposed his organs and faculties in such a manner that they are able of themselves to execute their functions and maintain their activity from birth to death. This theory is, that “God, before creating souls and bodies, knew all these souls and bodies.” Now, in the infinite variety of possible souls and bodies, it was necessary that there should be souls whose series of perceptions and determinations would correspond to the series of movements which some of these possible bodies would execute; for in an infinite number of souls, and in an infinite number of bodies, there would be found all possible combinations. Now, suppose that, out of a soul whose series of modifications corresponded exactly to the series of modifications which a certain body was destined to perform, and of

this body whose successive movements were correspondent to the successive modifications of this soul, God should make a man, it is evident that, between the two substances which constitute a man, there would subsist the most perfect harmony. It is thus no longer necessary to devise theories to account for the reciprocal intercourse of the material and spiritual substances. These have no mutual influence—no communication. The soul passes from one state, one perception, to another, by virtue of its own nature. The body executes the series of its movements without any participation or interference of the soul in these. The soul and body are like two clocks accurately regulated, which point to the same hour and minute, although the spring which gives motion to one is not the spring which gives motion to the other. Thus the harmony which appears to combine the soul and body is, however, independent of any reciprocal action.

This harmony was established before the creation of man, and hence it is called the pre-established, or predetermined, harmony."

III. The third hypothesis has for its author Plato. He illustrated the relation of soul and body, by saying: the soul is in the body, like a sailor in a ship; that the soul employs the body as its instrument, but that the energy, or life and sense of the body, is the manifestation of a different substance—of a substance which holds a kind of intermediate existence between mind and matter. This doctrine claims that this plastic medium participates of the two natures; it is partly material, partly spiritual. As material, it can be acted on by the body; and, as spiritual, it can act upon the mind. It is the middle term of a continuous proportion. It is a bridge thrown over the abyss which separates matter from spirit.

IV. The *fourth* hypothesis, or that of physical influence, is the doctrine taught by the Schoolmen. It is the oldest of the four doctrines, and was advocated by Aristotle, and taught in the earlier schools of Greece. This is the commonly accepted doctrine of the Psychological schools of the present day, modified as each may think itself able to substitute a better hypothesis. This doctrine Laromiguiere sums up as follows:

"External objects affect our senses, and the organic motion they determine is communicated to the brain. The brain acts upon the soul, and the soul has an idea, a perception. The mind thus possessed of a perception, or idea, is affected for good or ill. If it suffers it seeks to be relieved of pain. It acts in its turn upon the brain, in which it causes a movement in the nervous system: the nervous system causes a muscular motion

in the limbs, a motion directed to remove, or avoid the object which occasions the sensation of pain. The brain is the seat of the soul, and, on this hypothesis, the soul has been compared to a spider seated in the center of its web. The moment the least agitation is caused at the extremity of this web the insect is informed and put upon the watch. In like manner the mind situated in the brain has a point on which all the nervous filaments converge; it is informed of what passes at the different parts of the body; and forthwith it takes its measures accordingly. The body thus acts with a real efficiency upon the body. This influence or action being real, physical in the course of nature, the body exerts a physical influence on the soul, the soul a physical influence upon the body. This system is simple, but it affords us no help in explaining the mysterious union of extended and unextended substance."

And now, gentlemen, with the theories of these two schools before you which will you accept. Will you ignore the existence of matter, and study only the phenomena of mind, or will you ignore mind and confound Cause and Effect. It is a metaphysical axiom that the effect can never be the cause.*

The Physiological School studies only effects and raises them to the grade of causes. Force is made to be self-acting and self-directing, the phenomena resulting from force are effects not causes. Mental phenomena bear the same relation to mind. If you believe that common force, or chemical action produces thought, take a brain to the laboratory of our distinguished chemist, and ask him by any process known to chemists to produce a single thought. As we forewarned you we fear your conclusions are no clearer than before we began, We are unable to demonstrate to you clearly the process by which a single thought results, the relation of mind and matter by virtue of which mental phenomena are produced. We have shown you, more by influence than by direct proof, that mind is a final cause, a first cause, an ordinary, directing force, dependant upon a material world, a material organization, and physical laws for its operations and manifestations. I admit that every mental action is coincident with some vital change in the brain, but I do not admit that mental action consists in this vital change, more than that the movement, the wear and tear of an engine, is the force that moves it. Where else in nature do we find the same thing become at the same time cause and effect. The operation of an intelligent cause alone can satisfy the mind of man as an explanation of

* I. e. the same thing can not be at the same time cause and effect.

the workings of the mind. The mind of a Creator is everywhere displayed in all His works. It

"Breathes in our soul, informs our mortal path,
As full, as perfect, in a hair as heart."

If you accept these views you run the risk of being called by the self styled scientific men of this generation, a saint. But remember, gentlemen, that weak minds, unaccustomed to bear the burden of thought, who accept everything as authority upon the opinions of others, when they come in contact with this class of men, who ridicule every accepted principle of truth and who have no reverence for Revelation, are easily turned aside and made to disown the teachings of their own consciences, and becoming skeptics, readily believe that education and social influence alone inculcates these eternal truths. But whether you accept my views or not, let me warn you that science which prides itself in its own wisdom, has in no age of the world sustained itself. It falls. "Science without religion is insane, reason without revelation gropes about in the dark, and Philosophy loses her ordination as Priestess of the Most High, unless she be faithful in her office, as bearer of both incense and light."

With theories that develop man through successive degrees of animal existence from the lower forms of life, through the agency of self acting force, I have no sympathy more than those which make all force identical. I believe man's origin more elevated. "The hand that modeled the dust into the abode of a sentient being, touched it with perfection; and no better type of form or finish will be required by the spirit of man through the dispensations of earth, be they dark or be they glorious, than a body like that in which the first man bowed in worship, or walked erect in fellowship with his God." Truth ever is the same, whether accepted or rejected. Moral clouds may obscure it, skepticism shut it off as a cloud the Sun, yet

"Fond, impious Man! thinkst thou yon sanguine cloud,
Raised by the breath, has quenched the Orb of day;
To morrow he repairs the golden flood,
And warms the Nations with redoubled ray."

But after all, in your conclusions your own judgments must guide you, whatever respect you may show me as your instructor. The assertion of the poet will be realized:

"T'is with our judgments as our watches; none
Go just alike, yet each believes his own."

With this conflict of opinion and diversity of judgment, *how shall we study the mind.*

The Psychologist says : *study phenomena.* The Physiologist says : *study the brain.* Gentlemen, the common sense way is to *study both.* Take a practical view of the question. When a medical man is called into court to interpret the elements that constitute a case of insanity, does he figure before the court and jury brain cells, and processes, talk of connective tissue, of tubuli, of cortical and white substance? Does he state how much the brain of the individual is deficient in phosphorus, that the laboratory wants stocking up; does he discuss brain circulation, the relative weight of brain to mental capacity? All questions that are legitimate in their true relations to insanity. No, he becomes at once a Psychologist. He considers the power of Will, attention, memory, reasoning faculty and judgment. He makes his "opinion" up from a metaphysical stand point, and if physical symptoms exist indicative of corporeal derangement he details them to strengthen the presumption that insanity exists, but in no case would he on these alone risk an opinion that would affect his reputation. When we study electricity we study not only phenomena but materials. We learn what substances are good conductors and what are non-conductors. We study strength, weight, durability; and when we utilize steam, in the application of instruments to every day requirements. What would you learn of electricity from an analysis of the conducting wire? what would you learn of steam though you dissected every engine in the land without you employed this motor power? What do you learn of nerve force by an analysis, microscopic examination, or any test to which you can submit a portion of a nerve trunk? The microscope, the scalpel, and the laboratory will give you an insight into healthy brain and nerve structure. Study the instrument. The instrument in operation elicits phenomena that are indices of its perfect condition. Study the phenomena. The only true method consists in a thorough knowledge of the anatomical and physiological relations of the brain, joined to a thorough analysis and classification of mental phenomena. With this in view, our next lecture will discuss the three divisions or departments of the mind, recognized by metaphysicians, the Intellect, the Sensibilities, and the Will, as a basis for a study of the varieties of insanity. When we study the pathology of insanity, the subject will receive due consideration from the physiological stand point.

And now, gentlemen, in conclusion, let me beg of you not to despise any source of information that can afford you light to

guide you in the study of insanity. If because morality and religion have been based upon the views of the metaphysical school, if they are in harmony, or rather if they are blended, and you are skeptical, do not ignore its teachings lest you be charged with fanaticism or aught else. Is it more pleasing to you to believe yourselves bastards, the children of chance, the offspring of the physical force, than to accept the Biblical account of the creation of man?

If man is thus an orphan at his birth, and an outcast in his destiny; if knowledge is to be his punishment and not his pride; if all his intellectual achievements are to perish with him in the dust; if the brief tenure of his being is to be renounced amid the wreck of vain desires, of fruitful hopes, and of bleeding affections, then in reality as well as in metaphor is life a dream.

There are but two sides to the question; on one hand you have the conjectures of man, on the other Revelation. The Bible is not an expounder of science, but with no better light to guide us shall we accept it? Shall we not acknowledge that in all that pertains to the spiritual, the mind of man, its Author, the Creator of mind, is the best expounder."

Art. 4.—Alkalies in Bread—A cause of Change in Type of Fever, and Other Pathological Conditions.

By JAMES FORD, M. D., Member of Medical Society of Indiana, Ex-Surgeon 8th Indiana Infantry; U. S. Surgeon for Pension Bureau. Read before the Wabash County Society, October 28th, 1875.

Inflammatory Fevers of 100 years ago did not present phenomena in many respects like those of to-day. Then, the febrile action ran higher, consequently the fever terminated sooner in resolution or disolution. Now they, yet sthenic, approach the asthenic type. The fever is lower, morbid changes less rapid, and, if left to run its course, the termination is generally more favorable. The former required heroic antiphlogistic treatment, blood letting, emetics, alteratives and diaphoretics; the latter scarcely ever required venæsection or emetics; alteratives, diaphoretics and tonics, meet all the indications.

Other physical changes have occurred within the period above stated, not only in the character of the diseases, but in their frequency also. Among these may be mentioned, kid-

ney diseases, heart disease, decay of the teeth, uterine engorgements, diminished lactation, consumption and scrofula, together with all that train of morbid symptoms arising from poor blood, spanæmia.

From this statement of facts, which, we think, no one will deny, the question arises, Why this change? Has the physical organization deteriorated, or does it arise from telluric causes, over which we have no control, or may it not arise from substances which impoverish the blood, when taken into the economy mixed with the food we eat?

We will not advance any theory touching all these questions, but will confine our remarks principally to substances taken into the circulation from the bread we eat, which change the protean compounds into uria and uric acids.

It is certain that wheat bread has been, at least, a part of the food of man for 6,000 years; "leavened bread and unleavened bread" are mentioned in the earliest records that have descended to us. This was a wholesome nutritious bread. Fifty years ago our mothers learned, from some source, that "Potash," as it was then called, if dissolved in sour milk and immediately mixed with wheat flour, would "puff up the dough" of which they made light bread. The cause of this they did not know: the effect of this compound on the digestion and the economy generally they cared not to ask. A few years later, the whisky makers of New England learned that by suspending potash over the fermenting grain in the beer tubs its "raising qualities" were much improved: this salt they called "Salaratus." A part of the potash subjected to this process absorbed another equivalent of carbonic acid, generated by the fermenting "mash," so, then, it was a mixture of carbonate and bicarbonate. This impure salt was put up in pound packages, with printed directions as to how it should be used, and sold all over the country for years afterward. Of late years other alkalies and other salts have been brought into use. Of these the bicarbonates of soda and ammonia are most used; the bitartrate of potash, cream of tartar, with bicarbonate of soda is much used in raising of biscuit. The sulphate of alumina, alum, is extensively used by professional bakers, not for the purpose of making bread light, but to make it heavier, whiter and tougher, and, if the flour is bad, to give the bread a better appearance. Here, then, we have five alkaline substances entering into our daily food, in sufficient quantities, as we think, to materially injure the health and constitution.

Here we must let this branch of our subject rest until we

shall have examined the protein compounds, namely, albumen, fibrin, and caseine.

ALBUMEN.—COMPOSITION C₄₀₀. H₃₁₀. N₅₀. O₁₂₀. S₂. P.

Albumen is a clear fluid, and one of the most important of the constituents of the blood, and is present in larger quantity than any of the other solid matters contained in it. It exists in a state of solution in the serum and constitutes about 7 per cent. of the entire mass of the blood. If the proportion of albumen, in a state of health, ranges from 70 to 75 parts in 1,000, in disease, as in cholera, it accumulates to 131, but, in Bright's disease, it sinks as low as 55 in 1,000.

Effect of bases on Albumen.—The presence of an alkali in liquids (Dr. W. A. Miller) containing albumen considerably modifies the reactions; if the alkali be present in large quantity the solution does not coagulate when heated. Again, albumen forms definite compounds with the alkalies, and their metallic oxides. Coagulated albumen is dissolved freely by the solutions of the alkalies, and, according to Lieberkuhn, it retains 5.4 per cent. of potash, which holds it in solution. This solution of potassic albuminate is not coagulated by boiling it in water. Sodid albuminate resembles the potassic compound and may be formed in a similar manner. Thus, it appears that the alkalies, potash, soda and ammonia, dissolve fibrin in the tissues or out of them.

Albumen, though not a vital fluid, is the original "*Pabulum*" from which all solids are generated, affording the *material* for the production of the fibrin, the globulin and the hæmatin of the blood, yet, of itself, it has no formative capacity. Fibrin, then, is built into the tissues by their own inherent power of transforming and appropriating it.

FIBRIN.

Muscular fiber is chiefly composed of fibrin, and is closely allied, in its chemical composition and general properties, to albumen. Albumen and fibrin, in their chemical relations, and we may also mention caseine, seems to be modifications of the same substance.

Fibrin contains more oxygen and nitrogen than albumen; as the following table will show. In 100 parts of fibrin we find

	Albumen.	Fibrin.	Caseine.
Nitrogen, . . .	16.48.	17.21.	55.72.
Oxygen, . . .	18.27.	19.35.	21.55.

Thus it will be seen that albumen, by an increase of oxygen, is changed into fibrin, and fibrin by an additional increase of oxygen, is changed into caseine. "Of the substances that accelerate the metamorphosis of the tissues,* and thus augment the solids of the urine, the alkalies and their carbonates are those whose action is the best known; these (with such of their salts as are formed by the acids which are decomposed in the blood into the carbonic, such as the acetates, tartrates, and citrates), have powerful solvent action on the albuminous compounds generally, and tend to break up those compounds into similar forms of combination. Hence, "they tend to hasten the retrograde metamorphosis of the tissues; their chemical force being exerted, not merely on those which are already in a state of disintegration, but also on those which, being disposed to degenerate, *cannot exercise that resisting power†* which they possess, when in a state of complete vital activity.

Dr. Parks "has given satisfactory evidence that it causes an increase in the solids of the urine generally, but especially in the urea and in the amount of sulphuric and phosphoric acids; thus clearly showing that it hastens the metamorphosis of some of the albuminous structures of the body. The increase was more marked, says this author, in cases of *chronic disease than in ordinary health*. In a case of Eczema, Dr. Parks gave liquor potassæ with this result. The solids were increased from 660.1 to 689.6, Urea 371.5 to 454.5, Sulphuric acid 29.2 to 33.5, Phosphoric acid 10.6 to 15.4; and in a case of Phthisis, with Liq. Pot. the solids were increased from 608.2 to 781.7, Urea 368.8 to 408.8, Sulphuric acid 18.6 to 20.9, Phosphoric acid 9.9 to 14.5. A similar table has been given by Golding Bird.

It was the boast of our grand fathers that they lived to a good old age with all or nearly all of their teeth *in situ* and sound; but how is it now? Sound teeth are the exception, and decayed teeth or no teeth at all, is the rule. Artificial teeth, shining in the mouths of men in the prime of life, and young ladies in their *teens*, are a kind of dental logic, which needs only to be stated to carry conviction that there is something wrong, an *error loci* at least, in the mouth, if not in the system at large.

It may be asked why the teeth decay and not other bones as well? The answer is, other bones do become necrosed from the same causes. The answer of one question will be the answer of both.

*Carpenter's Physiology, Page 409.

†Ibid.

Every organ has its morphic and its metamorphic, its tearing down and building up process, so to speak, peculiar to itself. We have a most marvelous exemplification of design, which the vital economy of the body presents in no less a degree than its organized structure; an explication of power more marvelous, when it is shown that, not only every kind of tissue, but every spot of every organ, has its own special "pabulum," drawing something from the blood, which is different from that appropriated by every other part of the body, save the corresponding spot on the opposite side. This position seems fully established by the researches of Dr. W. Budd, and of Mr. Paget, on "symmetrical diseases."

The conclusion seems unavoidable, "that, however closely one portion of skin or bone may seem to resemble another, the only parts that are *exactly* alike are those which repeat each other symmetrically on opposite sides of the body; for, although no power of artificial chemistry may determine the difference, the chemistry of the living body makes it evident, the morbid material testing-out the parts for which it has the greatest affinity uniting with those alone and passing by the rest." Thus the *syphilitic poison has its seats of election, which it brings to attack the bone, fixing on certain parts of the tibiæ and of the skull, with great uniformity*. This law obtains, also, in the *decay of the teeth*. If, for example, the second molar tooth, on the right side of the upper jaw is carious, the corresponding tooth, *cæteris paribus*, will be found diseased also. Thus each tissue, taking from the blood the food it needs, it becomes an excretory organ; and removes from the blood that which, if left in it, would be injurious to the nutrition of the body generally. Thus the phosphates, which are deposited in the teeth and bones, are as effectually excreted from the blood, and as completely prevented from acting injuriously on other tissues, as are those which are discharged in the urine. But suppose we introduce some chemical agent into the circulating mass that interferes with this nice discriminating power, so to speak, of these excreting tissues, not only from meal to meal, but from year to year, from the cradle to the grave; let the following table show.

In explanation of this table, it may be necessary to state that the writer called on eight respectable ladies who had no small children, and requested them to give him as much "*Baking Powder*" as they used for one meal, and the number of each of their families. This Powder was invariably measured out with a spoon, and put in a package with the number of persons in the family, and the donor's name inscribed upon

it. These parcels were weighed and the contents given us in the table below :

SALTS USED IN BREAD AT ONE MEAL.

Name of Salt.	Soda.	Bitartrate Potassæ.	Baking Powder.	No. of Family.	Weight in grains.	Weight for each.	Total grains.
1. Sodæ Bicarb....	{ Soda..	Bitart Pot	.....	4	61	15 $\frac{1}{4}$	45 $\frac{3}{4}$
Cream Tartar ..			.....	4	122	30 $\frac{1}{2}$	
2. Baking Powder..	Soda....	.....	Tart acid.	4	135	.....	34
3. Baking Powder..			Tart acid.	4	240	60	60
4 Soda.....	{ Soda..	Bitart Pot	.....	3	60	20	60
Cream Tartar...}			.....	3	120	40	
5. Baking Powder..	Soda....	.....	Tart acid.	3	91	30 $\frac{1}{3}$	30 $\frac{1}{3}$
6. Baking Powder..			Tart acid.	5	314	63	63
7. Soda.....	{ Soda..	.....	Lactic a'd	6	60	10	10
Milk Sour.....}			.....	.....	.....	.....
8. Baking Powder..	Soda....	.....	Tart acid.	3	62	21	21
Total .....	.....	.....	.....	39	1,265	*32,4	.....

*Average for each individual.

The following conclusions may be deduced from the foregoing premises.

1st. All *Alkalies* taken into the system in excess of the normal supply, which the food is supposed to furnish, are *deleterious* to health.

2nd. *Alkalies*, when in the blood in excess, increase the capacity of albumen for oxygen.

3rd. Albumen, Fibrin, and Caseine are dissolved and held in solution by the alkalies and their carbonates.

4th. These alkalies are *Blood Alterants and Diuretics*, and have the power, if taken before meals, of reducing Obesity.

5th. When continued, the Albumen of the blood and of the tissues become oxidized; its sulphur, under the form of sulphuric acid, unites with the alkali, and probably with the changed protein compound, and is eliminated by the kidneys; and "induce (Waring) a *Cachectic condition of the system*."

6th. They act as slow *Poisons*, impare the plasticity of the blood, and destroy or cause the nutritive elements to be eliminated without properly supplying the waste in the tissue.

7th. I submit if, in view of all these considerations, the above enumerated causes are not sufficient to account for this change of type in fevers, this terrible gangrene of the teeth, this diminished secretion of milk in the female, this strumous diathesis, and all that class of diseases arising from an impoverished condition of the solids and fluids of the body.

Art. 5.—Address.

Delivered by EZRA READ, A. M., M. D., of Terre Haute, Ind., President of the College of "Physicians and Surgeons" of Indiana, at the College, Wednesday Evening, October 6, 1875.

Ladies and Gentlemen, Curators, Professors and Students :

Twelve hundred and sixty three years before the birth of Christ, when all Thessaly had assembled to celebrate the return of the Argonautic expedition, so famous in song and story, Aeson, alone, the King did not join in the festival that was celebrated on that occasion. Oppressed with old age, and upon the brink of the grave, he could enjoy no parts of the public mirth, though his own son was the great chieftain of the expedition so successful in the object of its mission, and now so safely returned.

They had followed the dewy star that gave to Neptune the trackless sea for the golden fleece, and had come back with the prize to receive the plaudits of all Iolchos. The King was not there, and the heart of his son Jason was melted to sorrow, and, addressing his wife Medea, the sorcerer said, "You have heretofore saved my life, and my obligations to you are inexpressibly great, but I have one more favor to ask, cut off from the years of my life and add them to those of my father. This you can do, for all things are obedient to your art." As he thus spoke, tears came to the chieftain's eyes, and the heart of Medea was touched with the tender love of her husband toward his old and infirm father, and said: "Not thus, not thus, I can not abridge the years of one so dear to me, but I will do better. I will give youth and strength to your father, and prolong his life to many years."

Of all the touching tenderness of filial love, none has been greater than this—"cut off from the years of my life and add them to those of my father," more beautiful, if possible, than the exclamation of Ruth in her grief to Naomi, "Entreat me not to leave thee or return from following after thee, for whither thou goest, I will go; where thou lodgest, I will lodge; thy people shall be my people, and thy God my God."

In a chariot drawn by winged dragons, she traversed various countries and gathered herbs from which she made a potion, and drawing the blood from Aeson's veins, injected in its stead the liquid she had prepared. As the draught was insinuated into the old man's veins, his beard and his grey hair darkened, the wrinkles of his face disappeared, and the vigor and strength of youth were again restored. This is the first recorded ex-

ample of transfusion. May be that it suggested that of the blood, so often tried, so often a failure. At all events, here was the idea, enunciated more than three thousand years ago. When this is announced as one of the new methods adopted to save human life, as by the unlettered it will be, the response will come back that the idea was enunciated before the Trojan war.

Pity, faith, skill, knowledge, are taught in this beautiful story of ancient mythology, characteristics peculiarly becoming the good physician.

In this, the beginning of our second year, we came not to cut off any years of other institutions of learning, but to add vigor and strength and longevity to our own. We shall gather knowledge from every quarter of the earth to be infused into the very veins of those coming to be taught.

From the unexampled success of the first session, we are assured of the future—and in all respects it has met professional criticism and received its commendation, and to those who win a diploma within these halls, they may in all the future turn proudly to their *alma parens*.

To the citizens of Indianapolis present on this occasion, and those absent as well, I desire to say a few words:—every part of our state looks with pride to its metropolis, to its growth, its wealth, its industry (its schools, colleges and universities), its energy and progress, in all that belongs to the refinement of civilization, in all that belongs to the solid progression of a progressive age. Its busy streets, its architecture, its work shops are but the manifestations of its intelligent inhabitants, but, in the great hurry to wealth, there should be none the less to knowledge; in the great struggle for the former, there should be none the less for the latter, for it is the motive power of all. It leads to the development of wealth from all upon and in the earth, from the seas and the deep rivers, from mountains and valleys and rocks; it directs the spindle, the engine, and the machinery of the world.

It binds the earth with iron for swift paths of travel, and, swifter than time, sends intelligence through the waters of the great deep.

It is God's power to man's intelligence; water and fire, in themselves, have simplicity from daily association, but when science is applied to direct the steam made from water by the application of heat, the machinery of the whole civilized world becomes obedient to its mandates.

It strips power from Vulcan, it over-rides Neptune, drives Mars from his battle-field, outspeeds the winged dragon and hurls back the thunderbolts of Jupiter tonans; it is heaven's

thunderbolts against the impotency of ignorance, and the coming of Messiah to man.

It is the renaissance of the world; a new order of the ages of years; the return of Saturnian reign.

Your own intelligence anticipates all that I can hope to say on this matter, and I almost feel that a mere reference to it is a trespass upon your time and patience, but it was that I feel almost painfully anxious to excite you to aid us in the ten thousand ways you may, to build up in this city a professional institution of learning, that will give much honor to the state more to you. In all kindness it becomes me to remind you, that your educational advantages are not commensurate with your requirements or the necessities of a great State Capitol. It is to your honor to have pre-eminence in this, not only in wealth and enterprise, but in the refinement and knowledge which should reflect back their beauties to points less metropolitan.

You are upon a small tributary of the Wabash river. You are embraced in its valley as is three-fourths of Indiana, a small part of Ohio, and one-fourth of Illinois.

In our own modest city a gentleman of wealth and enterprise has in course of erection one of the largest and most beautiful public buildings in the State. It will stand forever a monument to his liberality and generous affection for the coming generations. It is the Rose Polytechnic School, designed and superintended by one of your own eminent architects, and its purposes to educate the rich and the poor in all that will render them useful to the commonwealth. He, alone, erects and endows it in a most liberal and magnificent manner, and parentally provides a living fountain of knowledge for all the coming generations.

I observe from public prints that a wealthy citizen of Evansville will also build and endow a college in that city. From such as these shall come the scholars and the statesman to bless this age and race. It was the chiseled marble of Grace, its enduring columns, its temples of solemn grandeur, its philosophy, its science and its letters that gives out the inspiration of Divinity and compels Christian and Pagan at this moment to study its lessons, grand and instructive then, grander and more instructive now in its sublimity and the glory of its monuments, eternal in their beauty. All else may perish, but the sixteen letters of Cadmus will never be erased.

The Universities of Oxford and Cambridge have given a glorious prominence to the British Empire, that of Paris to France, that of Berlin to Germany. The Cambridge of our

own country has made Massachusetts pre-eminent in science and letters and its Capitol the Athens of the Continent.

What, then, for you, men of Indianapolis, but to gather here Colleges and Universities, that when the two millions of citizens of our great state come to its Capital, they may see something of more value than peanut stands and dried herring.

We invoke your wealth to enterprises that will give a higher honor to your city, in the dissemination of knowledge in the arts and sciences, that will add prosperity and happiness to the age.

To the young men who are about to approach the sacred portals of the temple of medicine, to strive for its science, its art, its mysteries and its honors, I can offer no easy access. On the contrary, every step is rugged and steep, and demands the sleepless eye of Argus to avert from dangers and destruction.

It is here, as in all things of life, that eternal vigilance is not only the price of liberty, but it is the price of success, the price of knowledge, the price of reputation, and the price of your very existence.

Prehension is one of the distinguishing characteristics of man. It is a power of achievement in all that makes man happy or great. Let me implore you to adhere to this, God's best gift, and suffer no act or allurements to disengage your prehension in whatever you undertake. Like to the way to Heaven so to Knowledge; it is accomplished through our own means alone. By your own toil, by your indomitable will and determination alone, can honors be won. The battle is not to the strong, nor the race to the swift, but to him who toils on slowly adding, as the bee to the comb, the spider to the web, the tiny insect to the coral reefs, the little drop to the ocean, the gentle whisperings of the wind to the hurricane. It is the aggregation of small things that makes the great. Prehension, toil and adhesion to a single purpose, will lead you to the humane and beautiful honors of the science of medicine. If you are mercenary, if you are idle and vicious, if you are intemperate, if you have no charity or mercy in your hearts, if you have not fully determined to do your full duty as students, *stop this night*, and let the paths be unobstructed to the good, for you can never reach the inner temple with its blaze of glory.

The science of medicine is exact, there are no mistakes in the workings of God's laws. Anatomy, chemistry and physiology are exact. Diseases are governed by fixed and determined laws—they are periodical or continued, but always in obedience to a fixed law. Ignorance, downright ignorance

alone, makes them uncertain. The action of remedial agents are exact, and, *ceteris paribus*, the laws governing the human system in health and disease, and the action of curative agents are in all things the same.

Let me warn you against the idea of thinking, from day to day, that you have attained all the knowledge required, that this particular era has it all, that this city or that man. Remember that brave men lived, even, before Agamemnon. I am, myself, not unfrequently ranked with old fogies by ignorant tyros who can neither read nor write the simplest sentence, much less spell it.

Long years ago medicine was skillfully taught, and the exactions from students were of the most rigid character. Those coming for instruction were generally cultivated and educated young gentlemen, and graduates of some literary college.

In my own class, nearly one-half could have written their Theses in Latin.

In closing, young gentlemen, I must say in all kindness to you, from respect to this institution, and my obligations to society, that I will not affix my signature to the Diploma of any candidate for its honors, who is not in all respects worthy.

To the Professors of the College of Physicians and Surgeons, I can only say that its honor, and that of the Professors of medicine in Indiana, is confided to your care and holy keeping, to preserve and guard it by diligent and scientific instruction to those who are soon to fill our places. You have been selected by the curators of this college for your ability and eminence in the various departments assigned to you, and, I am happy to state, that we have been strengthened in our judgment by the able and faithful discharge of your various duties.

The great Arthenian philosopher and teacher, Speusippas, had, upon the walls of his lecture room, the beautiful pictures of joy and gladness to signify that the business of education ought to be rendered as pleasant as may be.

Let joy and gladness be hung upon these and the glory of the science of medicine declared from your lips. *Doce, disce, aut discede* is our motto. I congratulate you, gentlemen of the faculty, upon the happy auspices surrounding this college, made so by your industry and learning in instructing those who come to be taught; and, in the distant future, its uprising will be upon the solid basis laid by your skill and toil.

To all, pupils and instructors, I commend the hopes and blessings of those who give prayers for your success in the

high aims before you, in building up a great institution of professional learning to bless the human race with health and happiness, and give honor to the science of medicine, to this metropolis, and this great commonwealth.

Art. 6—"PUERPERAL INSANITY."

Read before the "Society of Alumni of Miami Medical College," Sept. 23, 1875. By L. R. Landfear, M. D., Dayton, Ohio.

Mr. President and Gentlemen:

While looking around for a subject which would be of general interest to the members of this Association, my attention has been directed to a class of cases, to be met with in the practice of nearly every Physician and which, "the" nothing new may be adduced for those who have spent long years in the practice of medicine, cannot but have *some* interest for those, who, like myself, are comparatively young in the profession.

I wish, therefore, to call your attention briefly to the subject of "Puerperal Insanity." To be able to detect the first low mutterings of the coming storm; the insomnia, malaise, irritability, restlessness and unevenness of spirits; the pains in the head, the white and coated tongue, the constipated bowels; the quick and weak pulse; the melancholy, distrust, suspicion or perhaps some slight hallucination in regard to some one thing, each and all promising to develop into an attack of Melancholia or Acute Mania so fraught with anxiety to friends; with care and vexation to the Practitioner; to be able, I say to detect all these symptoms and read them aright, is, in many cases, to avert the threatened danger. Immediate and active treatment is imperatively demanded, which, if neglected, may lead to the most lamentable results.

It has been customary to designate all cases, occurring between the beginning of pregnancy and the close of lactation, as Puerperal Insanity; more recently, however, it has been subdivided into the Insanity of Pregnancy, of the Puerperal state, and of Lactation; "though" all are still included under the general head of Puerperal Insanity. The delirium, often occurring during labor, by some authors is claimed to be still another division; but it is not generally recognized.

Cases of insanity during pregnancy are far less frequent than those occurring afterward. The periods of utero-gestation at which we may look for the majority of cases, are, according to Dr. Tuke, those which are generally considered critical, viz: the third, fifth and seventh months. The majority of cases terminate with the occurrence of labor.

Between the two following divisions the line of demarkation is not so clearly drawn. By some it is claimed that the period of true puerperal insanity is during the first two weeks after labor; while others give a much longer time. The majority of cases, however, occur during the first two months after delivery.

Following this form, is the insanity caused by undue or protracted lactation. The injudicious and persistent nursing of infants, when there is an evident impairment of strength, as evinced by loss of appetite, weak pulse, languor and anemia, is a fruitful source of insanity.

Dr. Forbes Winslow has called attention to what he characterizes, as a "stage of Incubation," during which, as has been before intimated, we may hope for the most beneficial results from treatment. In an Asylum practice this stage is rarely met with. It is only after weeks, and perhaps months, of incessant care and watching, that the friends, worn out, and discouraged, it may be, consent to the removal of the patient to an Asylum. Before that point is reached, the milder cases recover.

Melancholia and Mania are the two forms met with, differing in no respects, as regards symptoms and character, from the insanity resulting from other causes.

It has been claimed by some that the profanity and vulgarity of puerperal patients is so marked as to distinguish them from all others, an opinion controverted by the best authorities by observation and statistics.

The suicidal impulse is *very* frequently present, as a source of unceasing care and anxiety to those having them in charge. Especially is this the case in the melancholia of pregnancy and lactation, where the persistence and cunning displayed in eluding the vigilance of nurses is often wonderful.

Much has been said and written, and much speculation indulged in, as to the causes of "Puerperal Insanity," and yet the matter is in doubt. Pathological research throws but little light on the subject. Where lesions are found, on post mortem examination, they differ in no way from those found in the insane from other causes. One fact, however, is well authenticated, that in a very large number of cases it is dependent upon, or associated with, an hereditary predisposition, and could the complete genealogy of every patient be ascertained, the number would be found to be far greater than is generally supposed.

As to the exciting causes there is also a diversity of opinion. The earlier writers supposed that all puerperal diseases were caused by suppressed secretions or a metastasis of milk to the brain; some even claiming to have discovered milk within the cranium, a theory which find few advocates at the present day. More recently the hypothesis has been advanced that the cause may be found in the excited condition of the whole sexual system during the puerperal period. The intimate relation existing between the brain and sexual system at other times, often being sufficient to

produce an attack of insanity when the functions are interfered with, serve as an argument for those who advocate this doctrine, and the nervous susceptibility of the lying-in woman being so much greater and so common is claimed as a good ground for her belief.

The Anæmic and exhausted condition of many patients suffering from Puerperal Insanity has led some to suppose that the cause may be found in the Anæmia and exhaustion consequent upon the puerperal condition; but this hypothesis is applicable to comparatively few cases. Possibly it may be in some cases a predisposing but scarcely an exciting cause.

Sir James Y. Simpson, however, claims that it is due to a state blood poisoning or toxemia; basing his belief on the similarity of the phenomena, at their supervention, to the blood poisoning of alcohol and the narcotic poisons. But "to what morbid change or to what special morbid agent in the blood it is due" he candidly confesses that he does not know. As an argument in favor of his view he states that "in a large proportion of cases there is present, at the commencement, a marked state of Albumenuria." Of the ten cases observed by him, in eight albumen was found in the urine. He further observes, that "where albumenuria exists there is always a diminished elimination of urea and other excrementitious material which usually pass off with the urine. Urea accumulated in morbid excess in the circulating system does not *per se*, or as urea produce any special poisonous effects; but to the sudden excess of carbonate of ammonia in the circulation, a salt which urea readily forms when it becomes decomposed, is due the Albumenuria resulting in convulsions coma, &c. That when the whole Chemistry of the blood becomes deranged, as is always liable to happen in Puerperal Albumenuria, other toxicological agents may become developed, possibly of an alkaloidal character, which may be as certain of exciting delirium and Insanity, as an overdose of morphia or other poisonous vegetable alkaloid, is certain of producing their special toxicological effects. In the blood of the puerperal female, modified as it is in pregnancy and delivery, and containing the effete elements of the disintegrating uterus and the materials for the new lacteal secretions, ferments and agents may possibly exist which are more apt to develop special morbid poisons out of the retained venal excretions than happens in other states of the system." This, in brief, is the above named authors view, and he concludes by saying that "the whole subject is yet quite dark and conjectural, and will remain so until pathological chemistry is able to cast some light upon it." In an Asylum practice it is extremely rare, if ever, that Albumen is found in the urine of a puerperal patient, as it is seldom found except at the very onset of the attack, and is of but one or two days duration; frequently of but a few hours.

Another exciting cause is due to mental emotions. Often a shock, which under other circumstances would produce no ill effect whatever, in a puerperal patient may be the feather which turns

the scale and precipitates the patient into a condition of the most violent insanity. For this reason it is claimed that single females are much more liable to suffer from this malady than the married, on account of the depressed condition of the mind during pregnancy and the puerperal state, caused by their unfortunate position. In some of the French Hospitals, statistics show that a very large per cent. of puerperal patients are single; greater by far than can be found in the Hospitals of Great Britain or the United States. It may also be added that the disease is of more frequent occurrence in first than in subsequent labors, and in unnatural and tedious than in natural ones.

The progress is very favorable. Even in an Asylum, where only the more serious and what might be called the chronic cases are treated, the majority recover and comparatively few die. But from the great number treated outside, by the general Practitioner, it is impossible to procure statistics which are at all reliable.

From the Records of the "Western Ohio Hospital for the Insane," I have collected a few statistics which may be of interest in connection with this subject. Unfortunately, on some important points, the Records are silent.

The whole number of females treated from September 1, 1855 to November 15, 1874, was seventeen hundred and seventy-five (1775), of which number two hundred and five (205) were marked "Puerperal," divided as follows: Pregnancy, twenty-eight (28), Puerperal State, one hundred and fifty-eight (158), Lactition, nineteen (19). One hundred and twenty-three (123) were discharged, Recovered, "eleven (11), Improved, twenty-nine (29), Unimproved, thirteen (13) died, and twenty-nine (29) were still remaining November 15, 1874. In one hundred and fifty-five (155) cases, it was the first attack in thirty (30), the second in eight (8), the third in two (2), the fourth in one (1), the fifth and in nine (9) unknown. Two hundred and one (201) were married, and but four (4) single. From the above it will be seen that more than 55 per cent. were discharged as "Recovered," while undoubtedly nearly, if not all, who were removed by friends, as improved, eventually recovered. The average duration of attack, before admission in those who recovered, was 3 months and 27 days, and the average duration of residence in Hospital, 5 months and 15 days. Average duration before admission in the improved 1 year, 6 months and 25 days, in the unimproved, 2 years, 2 months and 17 days. Of those remaining at the close of the year several have since gone to their home cured. Of the thirteen (13) deaths, three (3) only were from the exhaustion of Acute Mania. All others were from intercurrent affections, such as Phthisis, Marasmus, Epilepsy, etc., the average duration of residence being 3 years, 7 months and 10 days.

While the majority of cases recover, there are always two dangers to be dreaded—the danger to life and reason. With Acute Mania, the rapid and irritable pulse, running up to 120 or

130 per minute, is seldom unattended with danger to the patients life, not unfrequently, however, even under these unfavorable circumstances, the patients do recover, and that very rapidly.

At other times the bodily powers are restored while the mind is lost in an almost hopeless dementia. The principal danger to life is from exhaustion, and it is indeed wonderful that so many recover from the effects of such intense excitement, fatigue and loss of sleep.

In the treatment of Puerperal Insanity as in that of so many other diseases, a remarkable revolution has taken place; and, with the adoption of a more rational treatment, a corresponding decrease of the rate of mortality. Formerly venesection was resorted to on every occasion. No matter what the condition, or how great the anæmia, the patient must be bled. The cold shower bath, and, occasionally, the surprise bath were called into requisition; the latter consisting of a dark room with a trap in the floor through which the patient, in her wandering about the room, was precipitated up to her arm-pits, in a cold bath.

All this has now been done away with, and the attention of the Physician is directed to the building-up rather than the pulling-down process. Especially is this the case with the anæmic and exhausted patient, prostrated from loss of blood, protracted lactition or insomnia. In such cases tonics and calybiates, in addition to a nourishing diet, are imperatively demanded. No preparation of iron is, perhaps, better suited to this class of cases, than the Tincture of Perchloride, assisting, as it does, in the recovery of patients who have become exsanguine from loss of blood following or during labor or from prolonged lactition.

In the early stages, purgation is recommended by the best authorities. A brisk purgative, bringing away large and offensive stools, has been known, in numerous cases, to restore the patient to reason. Beneficial results also often follow the administration of an emetic where there is evidently an overloaded stomach with foul and coated tongue.

In a certain class of cases, where there is great excitement, and depletion would seem to be indicated, excellent results will frequently be obtained from the use of vascular and nervous sedatives. Warm baths, also, exert a most soothing influence.

The various anodynes, with a proper discrimination, play a most important part in the treatment. The various preparations of opium are perhaps most frequently employed, but, in order that it may produce the most satisfactory results, it must be given in large doses, small doses often having a tendency rather to increase than allay the irritation. In very many cases opium seems of no avail, and recourse must be had to other remedies. Hydrate of Chloral, Conium, Hyosciamus, Canabis Indica, and many others, are all, in turn, valuable agents. In Bromide of Potassium we have another valuable remedy, which often produces a peaceful sleep after all other means have failed.

In connection with the physical there is also a moral treatment which should, by no means, be neglected. Change of scene, separation from sympathizing but injudicious friends, a removal, so far as may be, from old and possibly disturbing associations; the presence of entire strangers, and the care of experienced nurses, with firm yet kindly supervision, are of incalculable benefit to patients suffering from this, as well as from other forms of insanity. The speedy recovery of many a puerperal patient, when removed to an asylum, is, I believe, due quite as much to these causes as to the physical treatment received.

From these remarks I would not be understood as advocating the immediate removal to an asylum of all patients suffering from puerperal insanity. Many, and perhaps the majority, may be successfully treated at home by the intelligent physician. Indeed, the practice of some physicians of "shipping off" these troublesome patients to an asylum, without regard to their physical condition, can not be too strongly deprecated. Such cases are not so infrequent as might be supposed, and reflect but little credit upon the heart or intelligence of the attending physician.

In conclusion, gentlemen, I can not but express to you how fully I realize the imperfections of this paper, and how imperfectly the subject has been brought before you; but, if I have succeeded in throwing a single ray of light upon the subject, for those who have never given it particular attention, I shall feel that my time has not been wholly misspent, and my object in writing it will have been accomplished.

Art. 7.—DISEASES OF TYMPANIC CAVITIES IN THEIR RELATION TO BRAIN SYMPTOMS.—
Acute and Chronic Inflammation of the Middle Ear, Often Produces Well-Marked Cerebral Symptoms, and May Easily be, and Often is Mistaken for Actual Disease of the Brain.

By A. D. WILLIAMS, M. D., St. Louis, Mo., Surgeon in charge of St. Louis Eye and Ear Institute.

The very intimate relation between the drum cavities and the cranial cavity, by means of nervous and vascular connections, is well understood. Remembering this intimate connection, it is not difficult to understand that acute inflammation in one or both drum-cavities might simulate very closely acute inflammation of the membranes or substances of the brain. My experience shows that the best physicians not unfrequently mistake acute tympanic inflammation for acute intercranial inflammation and consequently a very incorrect prognosis follows. Such mistakes are more particularly made in those cases where the tympanic inflammation goes on to suppuration,

to the formation of a tympanic abscess. In the past few years I have seen from 12 to 15 cases where such mistakes in diagnosis have been made, and the consequent very grave prognosis had been given that death would almost certainly follow. In the course of a few days, as the history would usually develop, a discharge from one or both ears suddenly appeared, and the brain symptoms all immediately disappeared, and the patient was well. All these cases were either infants or children, too young to give any definite account of the nature or the locality of their suffering except one, a young man from 18 to 20 years old. In his case an abscess formed in each drum, and he became suddenly so bad he could not tell anything about his suffering. In a few days the abscess broke, and all the symptoms were at an end.

The only way I know of avoiding such mistakes, is to uniformly examine the ears, the drum-heads in all infants and children, who are supposed to have inflammation of the brain. The appearance of the membranes will at once reveal the presence or absence of inflammatory trouble in the drum cavities.

The cause of the brain symptoms in tympanic abscesses is evidently indirect pressure upon the brain. In my judgment this pressure occurs mainly through the *foramen rotundum* upon the fluid in the cochlea, and is thence transmitted through the labyrinth to the brain. The purulent collection in the tympanic cavity presses the head of the drum outwards, which has at least a tendency to draw the foot of the stapes outwards, so that not as much pressure is made through the *foramen ovale* as through the *foramen rotundum*; but the drawing has about the same effect upon the brain as pressure.

But I wish to refer here particularly to the common symptom of *dizziness* in chronic inflammation of the drums and Eustachian tubes. I hear patients speak so often of being dizzy that I begin to consider it one of the prominent symptoms of disease of the drum cavities and tubes. This dizziness is more particularly indicative of imperfect ventilation of the drums, from whatever cause that may be produced. The defective ventilation results mostly from obstruction in the course or in the mouth of the Eustachian tube. And sudden obstruction of the tubes, that is to say, obstruction that develops in from a few hours to two or three days, is most likely to produce continued and troublesome dizziness. After the obstruction has lasted for a considerable time, the parts involved gradually become accustomed to the abnormal condition, and consequently the dizziness diminishes very much or may cease entirely. As might be anticipated from these statements, the symptom of dizziness is to be regarded as favorable in a prognostic sense, because it shows that the whole trouble is most likely in the course or mouth of the tube, and is of recent development, at least it is not of long standing. My experience sustains me in making a favorable prognosis in such cases.

I do not know that chronic inflammation in the drum *alone* ever produces dizziness; I have not met with such a case.

The conclusion, therefore, is that the dizziness is *solely* due to imperfect or interrupted ventilation of the drum-cavity.

The immediate cause of the dizziness is evidently indirect pressure upon the brain. As soon as the tube is obstructed, the air is at once absorbed from the drum-cavity, so that the proper equilibrium is interfered with. The outer air presses the drum-head inwards, that presses the foot of the stapes into the *foramen ovale* upon the fluid of the vestibule, through which the pressure is transmitted to the brain.

In chronic inflammation, it will be observed, the pressure reaches the brain mainly through the *foramen rotundum*. In one case it is *compression*, in the other it is *distention* of the drum cavity.

The position of the head sometimes has an influence on the degree of the dizziness. When the head is thrown suddenly far back, the attack of dizziness is occasionally so sudden and violent that it might be mistaken for a predisposition to apoplexy. Such a patient sometimes feels as if he was falling while lying in bed.

I can give no reason why the position of the head and body should increase or diminish the dizziness. The fact I have observed.

The cause of the dizziness suggests the best mode of treatment. In a word, it consists in re-establishing the proper ventilation of the drum-cavity. This is accomplished by the process of inflation, which I will not describe here, as that is not now the object in view.

In concluding, I wish to refer very briefly to one patient as the most marked case of dizziness from imperfect ventilation of the drums I ever saw.

Mr. S—, age 35, a private detective, is so hard of hearing (recently became so), that he cannot attend to his business. Has some noise in his ears. Is so dizzy he can not walk straight; staggers on the street from side to side of pavement, and often runs into the gutter when there is nothing for him to get hold of. This dizzy walk, in short, makes every body on the street think that he is drunk. Has no pain and has not had any, either in his ears or in his head.

Upon examination, nothing is found, externally, to account for his trouble in the way of deafness and dizziness. The external ears are normal; the membranes are possibly a little bit redder than natural. There are evidences of specific inflammation in the throat. By inflating the drums, I discover that the eustachian tubes are obstructed, but the air can be blown through into the drums. The diagnosis is easily made out: *Obstruction of the eustachian tubes, by swelling of the mucus membrane, from syphilitic inflammation*. In effect, it amounts to imperfect ventilation of the drums, and all the above symptoms result from that condition.

Such was the history and condition of the patient at the time I first saw him some months ago. I gave him anti-syphilitic medicine internally, and inflated his drums daily. The deafness and dizziness began to improve immediately, and in three or four weeks he was entirely well, and has been at work ever since, and now has no trouble whatever.

Such was the worst case of dizziness I ever saw from imperfect ventilation of the drums.

Dullness of comprehension, or great inactivity of the mind, sometimes approaching stupidity, is another evidence of obstructed eustachian tubes, though the same mental condition may come from disease in the drum cavities.

Just now I am treating a little school boy who had obstructed tubes. When I first saw him he observed that his mind did not seem to be clear; could not comprehend or understand things like he used to. His mother said he seemed to be actually "stupid" as well as deaf. The treatment relieved the obstruction, and now his mind is bright and clear.

The effect of imperfect ventilation of the drum cavities, and some diseases in the drums, upon the mind, has a very wide range indeed, and I do not propose to consider the matter fully here.

Perfectly clear drum cavities are absolutely essential to the perfect action of the mental powers.

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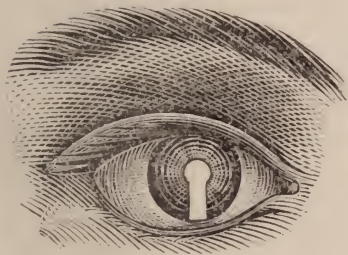
Art. 8.—DOUBLE COLOBOMA OF IRIS AND CHOROID.—A Section of the Lower Part of each Iris and the Lower Half of each Choroid Absent.

By A. D. WILLIAMS, M. D., St. Louis, Mo., Surgeon in Charge of St. Louis Eye and Ear Institute.

Miss L——, aged 22 years, rather delicate in appearance, but has enjoyed ordinary good health. Has always been able to read and write and sew as much as she wished up to about a year and a half ago. Has gone to school and studied enough to get a good education. A year and a half since she had occasion to do a great deal of fine sewing, and worked at it incessantly, both day and night, for several weeks. Some nights she would not retire before 12 and 1 o'clock. Under this constant and excessive strain, her eyes began to trouble her so seriously that she had to give up using them entirely. She applied to her family physician, who very properly treated her with tonics, alteratives, and some local applications to her eyes for several months, but without much benefit. Early the past summer her physician kindly referred her to me, with a letter stating what his treatment had been. When I first saw her, she complained of the ordinary symptoms of *spasm* of the accommodation. She could only look at print for a moment, when her eyes and head would begin to pain her, and she would have to look

away or cover her eyes. No kind of glasses benefited her in the least. Her vision was defective, and it was very difficult to make out her actual visual power, because the effort to look was so painful to her. Externally her eyes appeared normal, except the coloboma of the iris (see cut) in each eye.

Exterior and Interior of Same Eye.



Coloboma of Iris.



Colobomo of Choroid.

This made each eye look as though a very nice iridectomy had been made downwards. From the symptoms, I thought she had excessive spasm of accommodation, and, in order to relax that, I had her use, several times, a strong solution of atropine. Her pupils dilated largely, and, as usual, the light troubled her considerably. After the use of the atropine I treated her eyes with glasses, and found that she was not hypermetropic, as I expected to find her, but that she had myopic astigmatism, of mixed character and of considerable degree. The best I could do for her, so far as her vision was concerned, was a combination of two concave cylindrical glasses for each eye, with their axes crossed diagonally. With this combination I could bring her vision up to near two-thirds of the usual visual power.

Upon examining her eyes with the ophthalmoscope, I discovered that the lower half of each choroid was entirely absent. The lower half of the fundus, including the optic papilla, was snow-white (see cut), except the red blood-vessels, running in all directions, which contrasted most beautifully with the brilliantly-white background. The comparatively straight retinal vessels were easily seen, in number and distribution about as they should be. The appearance of the numerous sclerotic vessels over the white surface was most

beautiful. They were larger in size than the retinal vessels, and their irregular order reminded me of the marks made by the crawling of small fishworms in mud. The snow-whiteness, I need hardly say, was the inner surface of the sclerotic. The optic papilla was not visible in either eye. The upper half of each eye presented a normal appearance. The lower margin of the upper half of each choroid was well defined, and looked as though the lower part had been cut away with a sharp knife.

The remarkable thing in the case is that the young lady should have had such good vision all her life with such large defects in the interior of each eye. Heretofore it has been considered, so far as I know, that an eye with coloboma of iris and choroid, especially where a large portion of the latter is absent, is practically worthless. Here we have that condition in both eyes, and nearly two-thirds visual power in each, when the accommodation is relaxed and the proper cylindrical glasses are used. Certainly in a physiological sense the case is not without great interest. On this account I have reported it in detail. It is the first case I ever saw of coloboma of the iris and choroid in each eye.

After the ophthalmoscopic examination I waited till the effects of the atropine had passed off, and the power of accommodation had again become active, so I could repeat the examination of the eyes while not under the influence of the atropine. I found, as in the first examination, that it was impossible to benefit her with glasses. In fact it was out of the question to satisfactorily determine her visual power, because the least effort at fixing any object was so painful to her she could not bear it. The old symptoms of spasm of accommodation had returned, in their full force. The particular combination of concave cylindrical glasses that improved her vision so much when her eyes were atropinized, now made her vision much worse. The great difficulty of benefiting her with glasses can be easily understood when it is remembered that the lower portion of the ciliary muscle is absent in both eyes, and consequently there is no accommodative power at all in the corresponding parts of the lenses. When the upper portions of the ciliary muscles would contract spasmodically, as they evidently did constantly, the lens surfaces would be very much distorted (irregular); hence the impossibility of benefiting her with glasses. If her accommodation could be permanently relaxed, then a particular combination of cylindrical glasses would improve her vision very much. Were it possible to completely paralyze her ciliary muscles, then she could have glasses that would bring her vision up to about two-thirds visual power, and, in my judgment, enable her to use her eyes with ease and comfort.

Had she been more prudent about her eyes, and not used them so extensively as she did at the time they began to trouble her, it is quite probable these spasms of accommodation never would have come on. Now they may continue indefinitely.

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*Art. 9.—Some Remarks on Gun Shot Wounds of the Brain,
in connection with the late Carruth Murder.*

By FRANCIS DOWLING, M. D., of Cincinnati.

The trial of C. K. Landis, for the murder of Uri Carruth, editor of the *Vineland Independent*, which is to commence in January, will no doubt prove to be a very interesting legal contest, and owing to the somewhat peculiar circumstances of the case, will probably elicit some very interesting medico legal testimony from the medical experts who may be summoned *pro* and *con*. The counsel for the defense, unable to deny the shooting by their client, will undoubtedly do their utmost to make the best of a bad job, and endeavor to prove that the immediate cause of death was not the penetrating wound of the brain, caused by the bullet from Mr. Landis's pistol, but proceeded from the secondary formation of abscess.

What are the circumstances of the case? They are as follows: Mr. Carruth was shot by a pistol ball from a pistol in the hands of Mr. Landis, on the 19th of March. A physician of the Homeopathic school was called in to treat him, and gives an account of the case in the August number of the *American Journal of Homeopathic Materia Medica*, under the heading of "Remarkable recovery from a bullet in the brain." I will not endeavor to give the daily remarks in the report of the case from the 19th of April up to the 26th of May, at which latter date the patient was pronounced convalescent. I shall therefore submit only the following necessary points, as the symptoms in general present nothing worthy of particular mention.

The report states that the missile was a conical ball, measuring 7-16 of an inch in diameter. It penetrated the cranium, about half an inch above and to the right of the protuberance of the occipital bone; the distance between the muzzle of the pistol and the head of the victim was about six feet. The usual symptoms of concussion of the brain followed. On the morning of the 20th, Dr. Gross arrived in answer to a telegram from Landis, after which the report goes on to state: "At this, 10 A. M., the patient's pulse counts 66 per minute, the feet and hands are warmer, vomiting and retching have ceased, and the temperature of the body has considerably improved. Dr. Gross proceeded to examine the wound, and decided to make a crucial opening in the scalp, sufficiently large to admit of a free examination and survey of the parts within the skull, in the line of the bullet. After doing this, he introduced the little finger of his left hand, and found several small pieces of bone, which he removed by means of the forceps; he also found a larger piece an inch and a half inside the cranium, which proves to be the one cut by the bullet, containing both tables of the skull. He then introduced a flexible gum catheter, following

the track of the ball, *two and one-half* inches, and gave the opinion that it was impossible to reach it, he then closed the wound or opening which he made with sutures and left.

Things went on well now until the 12th of May, when another Homeopathic physician was called in to look at the case, and in order to make some surgical demonstrations, proceeded to probe the wound, and thereby inconvenience the patient once more, although there were no symptoms present calling for such a procedure. On the 26th day after the infliction of the wound the patient was pronounced convalescent. The report winds up with an *ad eundem* under the heading of "Remarks," in which the doctor makes a bombastic effort to display the wonderful efficacy of Homeopathic medicine in the case. The wonderful remedy used in this instance was Tinct. of Arnica, diluted *two hundred times!* In this lay the patient's salvation. The report states. "One important feature in the case I think is worthy of special mention, and that is, that under the use of Arnica 200th there was really no reactionary fever, as was anticipated would take place."

The patient continued well, and was able to go about, until the 23d of October—six months after the reception of the injury, when a few hours after eating his supper he was taken with a convulsion, followed by vomiting, after which he sank into a stupor and died about three o'clock the following morning. A *post mortem* examination was made, which revealed the ball situated within the posterior lobe of the right hemisphere of the brain, exhibiting nearly its original shape, and situated about *one and a half* inches from the point of entrance. Three abscesses were also found, collectively filling up the greater part of the lobe; they were but slightly separated from each other, and of different sizes. Such is a short outline of the case.

Now, then, the first question to be asked is, was it possible for the patient to have survived with the bullet in his brain if the abscesses had not been formed? If this question were propounded to the medical expert by the counsel for the defense, he would certainly have to answer in the affirmative, for the annals of surgical literature are nowise barren in records of cases of recovery from wounds of this description. Baron Larry, in his highly interesting and instructive "Memoirs," reports quite a number of cases; so too Mr. Guthrie, and other military surgeons. Guthrie, among others, mentions the case of a soldier in Canada during the war of 1812, who was struck by a ball, which lodged in the posterior part of the side of the head; the wound healed and the man returned to duty. He continued well, attended to his usual duties, with the bullet in his brain, for about twelve months, when he unfortunately got on a drunk, during which he suddenly fell dead on the street. On *post mortem* examination the ball was found encysted in the *Corpus Culossum*.

Three other cases are reported by Mr. Guthrie, which are almost identical with that of Mr. Carruth, inasmuch as in

each the wound occurred in almost the same locality, and in each a portion of the skull was carried in by the ball; the last of the cases differs somewhat from Mr. Carruth's, however, in the fact that the bone was allowed to remain in the brain, as well as the bullet.

Mr. Guthrie states that after the battle of Toulouse he had three cases, in each of which a piece of the occipital bone was driven in by a ball, which struck directly on the bone, and made a hole no larger than the end of the finger. He says the absence of serious symptoms, induced him to refrain from resorting to any operative treatment. He further says: "One case was however peculiar; the part injured was so exactly the size of the ball, and the bone was so clearly to be felt, deep in the posterior lobe of the brain, while the ball had probably gone beyond it, that I thought it right to recommend the man to have the bone removed. He declined, but begged to have more to eat, which I in turn refused. He had no bad symptoms; the wound had closed in and had healed when I left him at Bordeaux, about to embark for England." Mr. Guthrie further says that the recollection of these cases induced him, after the battle of Waterloo, to recommend in the case of a soldier similarly wounded, that nothing should be done, unless symptoms arose demanding the use of the Trephine; as none appeared and the wound healed, the man was sent home to Colchester; but unfortunately for him, he got drunk and fell dead in the market place. The *post mortem* examination revealed the presence of the ball lodged deep in the posterior lobe of the brain, in a sort of cyst.

Numerous other cases could be cited, but their enumeration would prove tiresome. I have selected these, because of the strong resemblance they bear to the case of Mr. Carruth, as far as the character of the wound in the skull goes, as well as the lodgment of the ball in the brain. In all of them the missile penetrated the occipital bone; in three of the cases mentioned, a button of bone comprising both tables of the skull, was driven in with the ball.

The case of Mr. Carruth differs, however, from those related by Mr. Guthrie, in this respect, that in the *post mortem* of the former, in addition to the encysted bullet, three abscesses were found in the same lobe, each but slightly separated from the other.

Now the important question that remains to be solved, is: was death, in the case of Mr. Carruth, caused by the presence of the bullet in the brain, or was it the result of the abscesses? The facts of the case go to show that it must be attributed to the latter, for in the *post mortem* examination the bullet was found encysted. Now what do we mean by "encysted?"—we mean that the bullet after entering and lodging in the brain, collects around itself a quantity of blood plasms, poured out from the blood vessels of that portion of the brain, in the immediate neighborhood of the bullet, sufficient to envelop it completely. This in the course of time is developed into a false membrane, which encloses the foreign body in a species of cell, and thus prevents it from coming into im-

mediate relation with the brain substance; the enemy is imprisoned, so to say, and prevented from doing any further injury to the brain. A bullet, therefore, which thus becomes encysted in the cerebrum, may remain years, even a life time, without interfering materially with the functions of the part. Abscesses, on the other hand, in almost every instance proves fatal, sooner or later, if they are not evacuated by surgical procedure, death being produced by the interruption to the performance of the functions of the brain.

The next question to be solved in the Carruth case, is: what caused the abscesses? Were they produced by the bullet wound, or were they caused by the officiousness of the physicians in probing the brain? The facts of the case point strongly in the latter direction. As will be seen from the account of the post mortem examination, the abscesses corresponded in number and direction to the courses given to the probe used by one of the physicians in attendance, on the 12th of May, in probing the wound. The report states: "On the 12th of May, Dr. Morgan introduced a small silver probe into the wound; it first passed a little to the left of the straight line three-fourths of an inch, then toward the right eye one inch, making one and three-fourths inches; within the cranium." (It is to be remarked here, that the probing was entirely uncalled for, as it took place on the 22d day after the reception of the wound; the case up to this time had progressed favorably, and no symptoms were present calling for such a procedure). The report states that Dr. Gross passed his probe *two and one-half* inches into the brain! without, as he says, meeting the bullet. Now by referring to the *post mortem* it will be seen that the bullet was found at a distance of only *one and one-half* inches from the opening, and was found to have retained nearly its original shape, consequently there were no fragments to produce "side issues" for the passage of probes, and the *straight* line made by the ball was only one and a half inches deep; but we find the probe of Dr. Morgan wandering around in a *crooked line*, to the depth of *one and three-fourths* inches, and that of Dr. Gross *two and a half* inches in a *straight* line. How can we account for this, when the passage way made by the bullet was only one and a half inches in depth? In no other way than by supposing that the gentlemen in question drove their probes into the sound brain substance, and thereby produced just as much laceration, if not more, of the brain as was previously produced by the passage of the bullet, and it is needless for me to say was just as likely to have produced inflammation as the latter.

It may be argued, here, that Dr. Gross, being a man of high standing in the profession, must certainly have known what he was about. Well, in answer to this, I can only say that "to err is human," and it looks as if there was some truth in the remark in this instance.

According to the medical report, no symptoms of inflammation occurred during the whole course of treatment, covering a period of about six weeks. Now, the presence of the abscesses go to show

that inflammation did exist, either during the time he was under the Doctor's charge, or afterwards, for abscesses are certainly products of inflammation, so that either it existed during the treatment of the case, and the symptoms were overlooked by the medical attendant, or the symptoms set in after he was pronounced convalescent, six weeks after the infliction of the wound. To be sure, abscesses are sometimes formed in a very insidious manner, and the symptoms of inflammation preceeding them might possibly be overlooked in a medical case; it is not so apt to occur, however, in a surgical case, without attracting the attention of the surgeon, if he possess average powers of observation. Besides, the presence of the foreign body in the brain would direct his attention in that direction, and, so to say, sharpen his powers of observation. But, when does inflammation generally occur in wounds of the brain? Taylor, in his work on Medical Jurisprudence, p. 285, says, in speaking of inflammation as one of the causes of death, in injuries of the brain, where they survive the first effects of the injury: "The process of inflammation, it must be remembered, is very slowly established in this organ—it may not manifest itself until from three to ten weeks after the injury."

The symptoms generally set in about the third day, however, and cases are rare in which the symptoms appear later than the second or third week, although there are cases on record in which they have set in later. Even Taylor cites a case as "remarkable," where a child was accidentally shot through the brain (the bullet traversing both hemispheres), and no symptoms of inflammation manifested themselves until the 26th day after the infliction of the injury.

Well, it may be asked, suppose that, in the case of Mr. Carruth, the symptoms of inflammation had been observed, and its termination in abscess diagnosed, of what use would such a diagnosis be, as far as saving or even prolonging the life of the patient was concerned? Let us see. From the *post mortem* we learn that the abscesses were three in number, situated in the posterior lobe of the right hemisphere, not far from the surface. Would not the use of the trephine, and puncture of the abscesses, have been feasible and justifiable under the circumstances?

I think it certainly would, and, in order to show the good results that sometimes attend such a procedure, I will cite a case reported by Baron Dupuytren,* which is only one out of a number recorded in surgical literature. It is that of a young man who received a wound in the head from a knife. Dupuytren says: "The wound healed in the usual way, leaving only a little pain, which occurred occasionally around the cicatrix. Some years afterward he was suddenly seized with stupor, and was brought to the Hotel Dieu in this state; after making an incision through the cicatrix, the point of a knife was seen sticking in the bone, the removal of which gave no relief. Paralysis continuing on the opposite side to that in which the wound was located, the *dura matre* was opened,

* *Lancette Francaise*, Jeudi le 14 d'Octobre, 1830.

and a knife plunged into the brain, when a large quantity of matter escaped. The paralysis ceased that night, he recovered his speech, and gradually made a good recovery.

Another interesting case is reported by La Peyronie:* A young man sixteen years of age received a blow from a stone, in the upper and fore part of the left parietal bone. No fracture could be detected. No symptoms of importance set in until the 25th day, when the patient noticed a sensation of pain and heaviness over the right eye; the pain was increased on pressure.

Three days after the occurrence of these symptoms he lost the sight of the eye, together with his senses generally, and sank into a state of stupor. An incision was made, and the bone exposed, when a fissure was detected. The trephine was applied, and splinters of the inner table of the skull were removed from the surface of the *dura mater*. Owing to the peculiar appearance of the membrane, the surgeons were induced to make an incision into it, when nearly three ounces of matter escaped, with portions of the brain. As soon as the matter had escaped, the patient recovered the use of his sight, together with his other senses. As the cavity began to refill, the symptoms again made their appearance, and again disappeared on its being emptied. At the end of two months he was perfectly cured, although he had lost a considerable portion of brain. La Peyronie further states that injecting a liquid into the cavity caused the same symptoms to appear, and its withdrawal, by means of a syringe, caused them to disappear.

Schenkins † gives rather a novel mode of emptying an abscess, in a case of his. He says: "A man being wounded in the head by an iron pointed instrument, which punctured the skull, suffered from an abscess in the upper part of the brain. As the matter could not discharge itself through the opening, he was attacked with epilepsy and rigidity of the limbs, followed by shaking. To relieve these evils he was suspended for some time by the heels, the head being downward, which allowed the matter to run out, and the patient recovered." The method of emptying the matter by means of the syringe would certainly be much preferable to the one just related by Schenkins, at least its execution would be much more convenient to the patient.

Does the locality in which the ball enters and lodges in the brain have any bearing on the mortality? Facts go to prove that it does, namely, that, while gun shot wounds of the posterior portion of the skull, with lodgment of the missile in either portion of the brain, are by no means beyond the range of recovery" as will be seen in the cases cited: the same condition in regard to the middle and fore part of the skull, with lodgment of the missile in the middle or anterior lobes of the brain, are almost universally fatal, especially where the ball missile penetrates deep into the substance

* La Peyronie sur la partie du cerveau où l'ame exerce ses fonctions, dans l'Histoire de l'Academie Royale des Sciences, 1744, page 199.

† Observat. 4, p.19.

of the brain; death taking place immediately, or before the time allotted for inflammatory symptoms to make their appearance.

*Guthrie says: "I have never seen a person alive with a foreign body lodged in the anterior lobe of the brain, although I have seen several recover, with the loss of a portion of the brain, at this point." Mauchel, however, reports a case in which a ball penetrated the brain, and was found a year afterwards, sunk about two inches in the anterior lobe of the brain. I had a case under my observation, in September, 1868, in which a bullet from a Sharps four barrel pistol entered the left anterior lobe of the brain. The notes of the case are unfortunately lost, but the patient made a good recovery; the only reactionary symptoms that appeared was a slight increase in the force and frequency of the pulse, about the fourth day, but which subsided on the administration of a brisk cathartic.

With the exception of the cases referred to, my observations have been confined to cases witnessed while attached to the U. S. Naval Hospital, "Red Rover," and a few of which came under my observation while in Europe in 1872 and '73.

Judging from the treatment resorted to in those cases, I am led to believe that the largest number of cures, in cases of penetrating wounds of the posterior part of the skull, were made in those cases in which an expectant plan of treatment was adopted, namely: In which no operative procedure was resorted to until some important symptoms manifested themselves, except the removal of fragments of bones, etc., from the mouth of the exterior wound, and that the mortality increased in proportion to the amount of officiousness exercised by the surgeon, in the way of probing and trying to extract the missile. Also, that the mortality increased in a corresponding ratio to the number of fragments into which the ball divided on entering the brain. Also, that there was less tendency to the production of abscess in cases where the ball retained nearly its original shape, than in cases where it was flattened, ragged, or divided into fragments.

A single fact connected with cases of recovery, with the bullet lodged in the brain, is that in a large number of cases death occurred while the brain was in an excited condition produced by alcoholic stimulants; death taking place suddenly, during a fit of drunkenness, without the occurrence of any premonitory symptoms to indicate the fatal danger ahead. It is hard to account for the immediate cause of death in these instances, except it be to the rupture of a blood vessel of the brain, and even then there ought to have been some symptoms of compression manifested before the fatal termination was ushered in.

In conclusion, it will be seen from the cases cited, that the case of Mr. Carruth was not necessarily fatal in consequence of the presence of the bullet, as it was located in the most favorable part of the brain for recovery, the posterior lobe. The abscesses,

*Guthrie on wounds of the brain.

however, were necessarily fatal, occupying as they did such a large portion of the lobe of the brain. Furthermore, that the fatal termination was hastened by the agitated condition of the deceased's mind in regard to making a settlement with Landis.

Concerning the treatment pursued by the physician in charge, and lauded so highly, by means of Tincture of Arnica diluted *two hundred times*, a word will suffice. It can hardly be imagined that any sane man could credit it with having any influence in keeping down inflammation; we might, however, dive so far into the regions of imagination as to credit it, if every case of penetrating wound of the brain were followed by inflammation, but unfortunately for the enthusiastic votaries of the treatment they are not. Therefore, it is more than probable, that good kind nature has in this instance, as in so many others, been robbed of her laurels by the medical attendant, who endeavors to place the stolen garland on his own brow.

Art. 10.—SULPHATE OF CINCHONIDIA.

By H. HALL.

After the introduction of a new remedy, it is interesting to note whether its claims are sustained in the cool every day use of the practitioner, when minor consequences, at first undetected, are allowed their due weight.

Measured in this way, and after an eighteen months trial, including quite a *widely-spread* use during the last *six* months, the new substitute for Quinia seems to hold its own. In the way of individual testimony, we put first the following letters from districts where malarial trouble prevailed during the past autumn with more than usual severity.

From Dr. Philip Adolphus, of Chicago.

"The gentlemen of the medical staff of the Central Free Dispensary of West Chicago have, for the past three months, been using Sulph. of Cinchonidine to the exclusion of Quinine.

"They are satisfied with its antiperiodic and tonic powers.

"Sulph. of Cinchonidia will in future be used in this Institution as a substitute for Quinine."

Dr. M. M. Van Ness, Decatur, Indiana.

"It is with the greatest gratification that after a continued test in every case where I have heretofore employed Quinine, that I commend the use of Cinchonidia. In ague, I think it far preferable. In over 500 cases during the past sixty days I have administered

it in doses of from 15 to 40 grains, and have never had a recurrence of the disease. I have no further use for Quinia, and am certain where it is fairly tried it will supersede all other bark preparations."

From Dr. F. S. C. Grayston, Huntington, Indiana.

"I have prescribed some fifty ounces of Cinchonidia for the various malarial diseases incident to this climate, and with satisfactory results. I believe in almost every case its effects were as prompt and reliable as generally attend the exhibition of Sulphate of Quinia. It is undoubtedly a valuable addition to our *Materia Medica*.

"I have prescribed the Cinchonidia in somewhat larger doses than that of Quinia, and have noticed a less disposition to the *return* of agues under its influence than has been my experience with the sulphate."

Dr. N. de V. Howard, St. Louis County Insane Asylum.

"We have used during the past six months over 50 ounces (of Sulphate of Cinchonidia), and find it equally as efficacious as Quinine.

Dr. D. T. Nelson, Professor Physiology and Histology, Chicago Medical College, Chicago.

"I have used the Sulphate of Cinchonidia in both hospital and private practice. I think it is a valuable addition to our *Materia Medica* for the treatment of diseases of this region, many of which are complicated with either intermittent fever or neuralgia. It does not disturb the stomach and brain as often as Quinia—indeed it rarely does. It controls the paroxysm almost as certainly as Quinia. The dose I have used has been the same as of the latter, or a quarter larger in a few cases. The much less cost of Cinchonidia is no small argument in its favor. The time of using any of the alkaloids of Cinchona, I think, is of the utmost importance. Give the required quantity in *divided* doses during the *first six* of the *twelve hours preceding the paroxysms*, till they are controlled, then every eight hours to prevent their return."

Dr. T. J. Griffith, Darlington, Indiana, August 22, 1875.

"I assure you that Sulphate of Cinchonidia is a new thing with me. I began using it in 1874, along with Quinia, and find it equally as reliable as an antiperiodic. During the present year, I have not used any Quinia in my practice. For the country practitioner, who dispenses his own medicines, in the use of Cinchonidia there is a saving of 125 per cent."

Dr. S. P. Collings, Surgeon to the Indianapolis City Hospital.

"I used the Sulphate of Cinchonidia in the surgical wards of the City Hospital for several months, and gave it, I think, a fair trial. Found it equal to quinia in every respect."

Dr. John C. Nottingham, Marion, Ind

"So far as I have used Cinchonidia, the action has been as prompt and effective as Quinia, without any cerebral disturbance. I know of no reason why it should not take the place of Quinia in almost all cases requiring that drug."

Dr. G. O. Woolen, Sec'y Indiana State Medical Society, Indianapolis, Indiana.

"I have used the Cinchonidia furnished me, mostly in my own family, in several forms of malarial trouble, and found no perceptible difference between it and sulphate of quinia, of which I have used a large amount."

Dr. Theophilus Parvin, in *American Practitioner*, in Notes of Practice at the Indiana Reformatory for Women and Girls, writes as follows:

"Sulphate of Cinchonidia in Intermittent Fever.

"Nearly two months ago I commenced the use of sulphate of Cinchonidia. It was administered in a solution* made by adding to one ounce of the salt two fluid ounces of aromatic sulphuric acid, and fourteen fluid ounces of water. A teaspoonful, or one fluid drachm, of this solution would therefore represent three and three-quarter grains of the sulphate.

"The number of cases of intermittent fever treated with this preparation was twenty-four—two quotidiens, one quartan, and the rest tertians. Immediately upon the manifestation of the disease two teaspoonfuls of the solution previously mentioned were given, and continued three times—adults four times—a day for three days; then, in order to prevent a relapse, two teaspoonfuls twice a day for one month. In no instance did it fail to promptly arrest the disease, and in no case has there been a recurrence, save when there was a failure to take the remedy as directed. In a case of Wood's *pernicious fever*, I did not think it right to risk the Cinchonidia, but gave Quinia; nor have I yet tried it in malarial neuralgia, having had such long-established confidence in the value of quinia, with morphine and the English extract of Belladonna, in this disorder; but, with these exceptions, the sulphate of Cinchonidia is almost the sole reliance as an antiperiodic in my practice at the Reformatory."

*Since writing the above, some three weeks ago, many new cases of intermittent have occurred at the Reformatory, and they have been characterized by greater gastric disturbance and greater obstinacy to the action of remedies. For the former reason I have replaced the solution mentioned by pills of the Sulphate of Cinchonidia, tartaric acid, and water (this is an admirable way of making pills); and, for the latter, I have given the Sulphate in larger doses—in one instance, forty grains within twelve hours. The general result has been still quite satisfactory. In the few instances where the remedy failed to arrest the disease, it was not given in sufficient quantity, or was rejected by vomiting.

Translations.

By HENRY ILLOWY, M. D.

Surgical Anæsthesia in Children by means of Hydrate of Chloral, Administered through the Stomach.

By E. BOUCHUT, Phys. Hospital des Enfants Malades, and Professor Aggrégé to the Faculty of Medicine.

At the last International Congress of Physicians, in Brussels, during the debate upon Surgical Anæsthesia, and apropos to the proposed intravenous injection of chloral by M. Oré, Dr. Bouchut made a very interesting communication.

Without discussing the merits of the various procedures adopted by surgeons for producing surgical anæsthesia, whether by means of chloroform, ether, or the intravenous injection of chloral, Dr. Bouchut takes another stand-point. He has made known to the Congress that, in children, absolute anæsthesia may be produced by chloral, administered per orem.

This result, certain, and easily obtained in the child, can not be brought about in the adult. Whether it be that in the adult so large a dose as would be required (8 to 10 grammes) can not be swallowed without causing nausea and intolerance of the stomach, so that it is immediately thrown off—anæsthesia can not be brought about. In children, however, the chloral is taken without any difficulty in 3 and 4-gramme doses, without causing pyrosis, gastritis, vomiting, or diarrhœa—the child goes to sleep more or less deeply anesthetized.

It is only after a great number of facts had been obtained that the results were made known to the Congress. Since 1869, when Demarquay first imported chloral into France, and declared it useless, Dr. Bouchut has used it in his service in the Hospital des Enfants Malades, and recognized its valuable hypnotic and anæsthetic properties. Since then it has been largely used in the hospital for chorea and cerebral rheumatism, and, as an anæsthetic, for opening abscesses and drawing teeth. It is prescribed daily in from 3 to 4-gramme doses, for 8 or 10 children, and, in some, continued for three or four weeks, more or less. Dr. Bouchut has thus employed it in from 8,000 to 10,000 cases, and has never had any fatal accident occur. In one case there was a menace of arrest of the action of the heart, in a child suffering with insufficiency of the mitral valves. There has never occurred any internal trouble, even where the remedy has been given in from 3 to 6-gramme doses for as high as a month or six weeks, so that the patient must have absorbed from 200 to 240 grammes.

Dr. Bouchut was the first to recommend the remedy in chorea, and he has used it successfully in cases so severe that death seemed

imminent—administering three grammes at a dose, morning and evening—and continued for fifteen or twenty days. It is *the remedy* for this disease, and becomes absolutely necessary in those cases where the movements become so violent as to excoriate the skin, and threaten the life of the patient. In compelling the patient to rest quietly and immobile eighteen hours out of the twenty-four, there is no further erosion of the skin, the movements diminish, and the patient is cured.

Dr. Bouchut, as shown by the 10,000 cases, has obtained in children, by doses of from three to four grammes, administered at one time, sleep and absolute insensibility.

The same results could be obtained by the use of suppositories of chloral, prepared according to the formula of M. Mayet (Bulletin in G. de Therap. tome 88, p. 319), but the rectum is more irritable, and when, at the end of three quarters of an hour, the suppository melts, it provokes tenesmus and heat, so that its further use is precluded.

By stomach is the best method of administration, and its tolerance of the remedy is perfect.

Sleep comes on rapidly; a quarter of an hour after the ingestion of the entire dose anæsthesia commences, and is perfect at the end of an hour. If an abscess is to be opened, an incision may then be made on the sleeping child, which may sigh, or move a limb, without waking up, however, and then return to a state of immobility, to wake up after three or four hours and not know that anything has happened. The same anæsthetic procedure may be made use of for the destruction of erectile tumors, by the vienna paste, and for the pulling of teeth.

This is the method of procedure at the Hospital des Enfants Malades: At 8 o'clock the sister administers from three to four grammes (according to the age of the child) of chloral, and the child goes to sleep in twenty minutes. At 9 o'clock the dentist passes through the ward and pulls the tooth, at times two teeth, and when the child wakes up, after three or four hours, it is minus its tooth, without suffering, or having seen the dentist.

Those who know the pain of having a tooth pulled, and the difficulty of doing this in children, will appreciate in chloral a precious agent.—[*Bullet. G. de Therapeutique.*

Facial Neuralgia and Azotate of Aconitin.

In our investigations on the physiological and therapeutical effects of aconitin, in the course of publication, *Facial Neuralgia* was noted as one of the diseases upon which this remedy exercised a powerfully curative effect.

A number of new results, more remarkable than those already obtained, induces us to call the attention of our colleagues to this mode of treatment.

Our observations we will publish later. To-day we shall content ourselves with describing the method of administration. Besides,

the moment is now favorable, as we are now in a season most favorable for the production of this affection.

The aconitin is more particularly indicated in idiopathic facial neuralgia, although the symptomatic neuralgia may be beneficially modified as regards its painful element; it will not be cured—that is self-evident. It is, above all facial neuralgia, *from cold*, and of *congestive* character, which is most subject to the curative effects of this agent.

The preparation best adapted for administration seems to me to be the *Crystallized Azotate of Aconitin*, of Duquesnel. This is an important point—to use the best preparation, and one that remains always identical.

The pharmaceutical form may be either a solution, by hypodermic injection, or granules of $\frac{1}{4}$ milligramme (=1.280. gr.),

Method of Administration.—Administer between meals 1 granule of $\frac{1}{4}$ milligramme, at intervals of at least four hours—*under no consideration sooner*. Never more than one granule—never give more than four granules in the twenty-four hours;—this is the maximum.

Generally, this is the way which has seemed to us best: To administer three granules (at intervals of four hours each) in the first twelve hours—and this preferably during the night—after that to give the patient a rest of half a day, after which reduce the dose to two and successively to one granule in the twenty-four hours. Once the neuralgia relieved, and it is generally after the administration of the second or third granule, it will be necessary, as a preventative, to continue for some time the azotate of aconitin, in doses of one to two granules in the twenty-four hours.—[*Dr. Labore, in Tribune Medicale.*]

Treatment of Lupus with Acetate of Soda.

Dr. Anderson extols very highly the use of Acetate of Soda in the treatment of lupus. The part affected with lupus is washed three or four times a day with a solution of the strength of one gramme of Acetate of Soda to thirty grammes of water. For the night, the affected part is covered with pledgets of charpie, steeped in oil. In certain cases it becomes necessary to resort to the application of the crystals of the Acetate of Soda to each ulcerated part.—[*Morgajin Journal de Therapeutie, No. 14.*]

Kamala.

This red powder is in common use in Switzerland as an Anthelmintic, and is administered as an electuary, prepared in the following manner: Six to twelve grammes of the powder of Kamala are mixed with thirty to forty grammes of the pulp of Tamarinds, the acidulous taste of which is generally agreeable, and to the whole may be added syrup of bitter orange-peel, or lemonjuice.

The electuary should be taken in the morning, fasting, at one dose. An hour afterwards, the patient may breakfast and attend to his business. The result is some rumbling of the bowels, several liquid evacuations, without tnesmus, and, towards evening, a last stool, which brings the worm.

The bothriocephalus is generally expelled with the head. In one case, twelve grammes of Kamala expelled four bothriocephali, whose combined length measured 120 feet.

With tænia it frequently occurs that the head is not expelled; and the treatment must be once more resorted to after several months.—[*Journal de Therapeutique*, N^o. 14. *Bullet. M. S. R.*

Ozæna.

At a late meeting of the Therapeutical Society (Paris), M. Crequy reported a case of ozæna promptly cured by Hydrate of Chloral. The case was that of a young girl of thirteen years, who, since her third year, had suffered from ozæna. She had been treated with carbolic acid, coal tar, eau d'enghien, etc., in vain. Since April 13, when she came under his care, M. Crequy had employed the chloral as follows:

R Chloral Hydrate, 2 grammes.

Aq. Destill, 250 grammes.

M.—One tablespoonful of the above solution put into a tumbler of water, and used by means of a nasal douche.—[*Rev. Medico Photogr.*

The Treatment of Fistulous Passages Consecutive to Cold Abscess by Cauterization.

In the cases of interminable fistulæ, M. Lailley has resorted, with the greatest success, to the destruction of the sinuses by cauterization. For this purpose he uses bolts of Canquoin's paste, which are prepared after the following manner: With a solution of chloride of zinc, obtained by allowing the salt to deliquesce through exposure to humid air, is incorporated a sufficient quantity of farina to make a soft paste (like that of althæ); it is then fashioned into pastilles and cylindrical bodies, pointed at the extremity. The size of these cylindrical bodies is variable, according to the dimensions of the passage to be cauterized. They are allowed to dry and acquire great rigidity, so that they are easily passed through the anfractuosités of fistulous wounds.

Taking care to enounce them deeply, they are easily retained in place. Their introduction, if expertly done, does not cause any more pain than the exploration with a probe. The pain does not commence till after several hours; it is then very great, and lasts some time; very often it is not calmed even after four hours. At the end of this time mortification is complete, and, after several days, the eschar begins to detach itself.

If the fistula was subcutaneous, the mortified skin will detach itself through the whole extent of the passage, and, after the separation of the eschar, you have a regular wound, of healthy appearance, which will heal with remarkable rapidity, and leave a cicatrix more regular, and less misshapen than that which follows a spontaneous cure. One is frequently astonished—at times almost frightened at the powerful penetration of the caustic and the depth of the eschar. This surprise, however, is not at all equal to the pleasure felt in beholding the rapidity of the reparative process. These wounds (of the caustic) granulate with a rapidity truly remarkable, and of which one who has not seen it can form no idea.

When the fistulous passages are very long and very deep-seated, it sometimes may be necessary to cauterize the passage a second or even a third time. The results of this method of treatment are really surprising—one beholds patients entering the Hospital Saint Louis, the neck honeycombed with sanious fistules, against which they have tried a host of remedies, and leaving it, after several weeks, with nothing remaining but cicatrices. [*Danlos in Trib. Medicale.*]

Proceedings of Societies.

CINCINNATI MEDICAL SOCIETY.

Reported by B. STANTON, M.D., Sec'y.

The society met November 9; 1875, Dr. Comegys in the chair.

Dr. Quinn said that small pox had existed in the city since January; that, although it seemed to be held in abeyance during the summer, it took a new start in September. During that month there were twenty-five deaths. In October, seventy-nine. Between November first and ninth, forty-six new cases of the disease had been reported at the Health Office. Nine hundred and fifty cases of the disease and two hundred and eighteen deaths have been reported to November first. The disease is prevailing most between Plum and Sycamore streets, north of the canal. Every building in which a case has occurred has been visited by a sanitary officer, who noted the surroundings, the number exposed, ordered cleanliness and the use of disinfectants, isolation of the patient, and avoidance of unnecessary communication with those without the building. Carbolic acid had been evaporated in the rooms, clothing taken possession of and immersed in a solution of sulpt. zinc. When possession of the room could be had, fumigation had been resorted to. These measures had been instituted without the authority of law, and some opposition had been manifested.

Dr. Quinn thought nearly, if not quite all the cases occurring in the city, were reported at the Health Office.

Dr. Taylor brought before the society a patient, of whom he gave the following history :

Alice —, aged 23, single, a person of low grade of mental development. Eleven years ago she began to have gastric dyspepsia; had acidity of stomach, and sometimes vomited her food. Nine years ago she was struck in the epigastrium, causing a bruise which remained a long time. The physician in attendance told her that one rib on the left side was broken. After this her gastric symptoms increased. She says that, for three years, she has vomited blood. She has hysterical convulsions, which she describes as epileptic; claims that she is entirely unconscious during their continuance; has tenderness of lower dorsal spine. She has been under observation several months. *Dr. Taylor* had seen her in one of the convulsions. There was frothing at the mouth, and some opisthotonos. She did not bite her tongue.

Usually when under observation there is marked spasm of the respiratory muscles, breathing becomes largely thoracic and spasmodic, there is irregularity of muscular action, and a tumor, presenting the phenomena of phantom tumor, presents in the epigastric region, a little more marked on the right side. This, he believes, is largely due to spasmodic contraction of the diaphragm and abdominal muscles. After the examinations are completed, there are eructations of gas from the stomach, and the tumor disappears, which caused him to believe that the tumor was partially due to gastric distention. For some time past she has had detention of urine; has to be catheterized twice a day. The quantity drawn each time is small. That there is something more in this case than the hysterical element, is shown by the gastric symptoms.

The patient was placed on the table, and the tumor examined, after which ether was administered by inhalation, and the tumor disappeared.

In answer to *Dr. Richardson*, *Dr. Taylor* said he had never seen her vomit blood, and he doubted whether she had really done so.

Dr. Richardson said that, judging from the unsteady movements, there might be some spinal trouble in the case.

Dr. Kemper thought the eructations might be accounted for by the dyspepsia. He thought the tumor was muscular.

Dr. J. Davis said the first appearance was that of a tumor of the stomach, but dullness on percussion, which disappeared on etherization induced him to believe it was muscular. By repeated effort she has acquired the power of contracting the upper part of the recti muscles with much force.

He mentioned two cases of phantom tumor with which he had met. In one the tumor was removed by the administration of a cathartic. That case so closely resembled an ovarian tumor that it had been mistaken for one.

Dr. MacKenzie said he could not understand how the mechanism of this tumor could be accounted for simply by muscular contraction.

Dr. J. Davis—Hypertrophy.

Dr. McKenzie—If hypertrophied that condition would not disappear on the administration of anæsthetics. The contractions of the abdominal muscles forces the bowels up into an unnatural position, thus giving the appearance of a tumor in the upper part of the abdomen.

Dr. Kearney suggested that the contractions of the diaphragm might force down the liver, thus giving rise to the dullness on percussion.

Dr. Zenner said that, during his residence in the hospital, a woman was admitted to the lying-in department, representing herself to be pregnant. She had the appearance of a woman in the seventh month of pregnancy. Under the influence of chloroform, the tumor disappeared. In that case there was no special abdominal rigidity, so that muscular contraction could not have accounted for the tumor. Continued pressure also caused the disappearance of the tumor.

Dr. Quinn said he had seen several cases of phantom tumor. One was mistaken for ovarian tumor, and one woman in the lying-in department of the hospital was supposed to be pregnant. All of the cases he had seen were associated with hysteria; he doubted the presence of gas in this tumor, thought it was muscular, and that the production of it was involuntary. In this case the condition might be due to some uterine disease, or it might be from spinal irritation.

Dr. Culbertson said that he had been requested by a woman, who supposed herself to be in the fifth month of pregnancy, to attend her in her expected confinement. In due course of time he was sent for, on examination he found the abdomen somewhat distended, but she did not present the appearance of a woman at full term of gestation. A careful examination revealed the fact that she was not pregnant.

Dr. Quinn said that some years ago he was engaged to attend a woman in her confinement. Sometime after he was summoned and found the woman in what she supposed, to be labor, but no pregnancy existed. A year or two later he was summoned a second time, the woman again supposing herself to be in labor. A tumor existed, but pregnancy did not. He saw the woman twice after that. At one time the tumor was present, at another time absent.

Dr. Kemper did not think the tumor voluntary, believed them to be involuntary. He thought that in the case presented, the diaphragm was not contracted, but that it was raised, the lungs being partially emptied. He thought also that there was a spinal element present, irritation. If it did not already exist, it would be likely to occur soon. He had been called upon, some years ago, to see a woman who had a solid tumor, two-thirds the size of a foetal head over the right ovary. Under the influence of chloroform it disappeared. She stated that she had once been placed on a table for an operation, but when chloroform was administered the tumor

disappeared. When in good health she was free from the tumor, but when her health was impaired it returned. In the case presented the tumor might arise from uterine disease, but it does so indirectly.

Dr. W. B. Davis said he saw the case referred to by *Dr. Zenner*, the woman presented the appearance of pregnancy. Under chloroform the tumor disappeared without the escape of gas. There was no dullness on percussion, and no muscular contraction.

Dr. McKenzie said there was always enough gas in the intestines to make considerable show if all forced to one part of the abdominal cavity. In the case presented the contraction of the diaphragm forced the liver and stomach down, and the contraction of the abdominal muscles forced the small intestines upward, thus causing the projection observed.

Dr. Holdt thought the term "phantom tumor" not applicable to this case. He did not think there was any tumor.

Dr. Richardson referred to a case in which there were large accumulations of gas which were discharged on the administration of anæsthetics. As to the term "phantom tumor," he understood it to apply to any variable tumor, gaseous, liquid or solid. Phantom tumor may be co-existent with real tumors. In this girl it is evident that the size of the abdomen diminishes under ether.

The society met Nov. 16th, 1875, *Dr. Comegys* in the chair.

Dr. W. B. Davis, said, that some months ago his attention was called to a report made to the Academy of Medicine, by *Dr. Orr*, on the aphrodisiac properties of *Damiana*. Having a case in which such a remedy seemed to be peculiarly applicable, he procured a bottle of the medicine, with it, was furnished a circular detailing its properties. This purported to be an extract from the *Virginia Medical Monthly*, in which the writer, although admitting that he was ignorant of its technical name, or classification, was satisfied with its influence over the genito-urinary organs. *Dr. Davis*, was reminded by this circular of the clap-trap, written about *cundurango*, so vaunted a few years ago as a remedy for cancer.

It is claimed for this remedy, that it increases the appetite, promotes digestion, increases the flow from the kidneys and gives great power to the sexual organs.

The inference drawn from the cases reported, was, that longevity, as well as procreative power, is due to the use of this remedy.

The patient by whom *Dr. Davis* was consulted, was a farmer from Kentucky. He was a temperate man, there were no indications of excesses. The administration of iron and strychnia, had been followed by a general improvement in physical health. He looked well, felt well, but there was no improvement in the desired direction. Phosphorus was then given, with the result of continued improvement in physical health, but the desired relief came not. *Damiana* was then prescribed and after the administration of 16 oz., there was no perceptible improvement.

If we can be allowed to judge from one case, this article is entirely worthless.

Dr. Kemper, said he had tried this remedy. A case of lead poisoning was followed in a couple of months, by loss of sexual power. *Damiana* was given without any effect.

Dr. Epstein, reported a case, in which impotency followed the reduction by taxis of an inqual hernia, a result he had never but once seen. He also, reported a case of a young man, tall, strong, temperate, who was fearfully dejected because of impotency. A cure was effected in that case by the administration of chloride of gold and iodine.

Dr. Quinn, said that some years ago, when in charge of Lick Run Lunatic Asylum, he concluded to place a number of the demented patients, under the influence of phosphorus to observe its effects upon the intellectual powers. No change in mental condition was observed, but many of them got to having erections and began to masturbate. In every case an intense jaundice followed the use of the phosphorus. It was given dissolved in ether, grs ij to ʒj. in different doses, and at different intervals, but the effect was the same in all cases.

Dr. Holdt, said he would hesitate to use the chloride of gold and iodine because it decomposes so easily, always decomposing in the presence of organic substances. He would also refuse to prescribe it because its action on the system is unknown. So great has been the progress in physiological and pathological science that we should build our theories on physiological grounds, not by deduction.

He had been consulted frequently by persons who supposed themselves to be impotent. He generally ridiculed the person, advised him to cease thinking about it, recommended good diet, regular exercise, &c.

In some cases there were organic lesions, if these were not present no medicines were given. If anæmia existed tonics were given.

Dr. Epstein thought the chloride of gold and iodine useful because of its easy decomposition, the gold being the valuable part of the remedy. Gold is preferable to mercury, because it can be given longer without producing ptyalism.

He said he would use any article which would cure disease, even if its action on the system were not understood.

Dr. Quinn thought we should not refuse to use remedies because their action in curing diseases was not fully understood. The action of quinine as an antipyretic has not been explained, but who would hesitate to use it on that account? Our theories should be deduced from facts.

Dr. Taylor, said the subject of impotency was one of difficult solution. Where there is no offspring the question sometimes arises, whether it may be from sterility or impotence, as had occurred in a case under his observation. A woman whose health had been seriously impaired, who at one time seemed in imminent danger of

dying of consumption, had gradually improved, dyspnæa cough, &c., left her. She was the second wife of a man who was apparently in good health, but by neither wife, had he had any children. There was at one time a suspicion of too great intimacy with an unmarried woman. To the wife the subject of having children was one of entire indifference. In such a case the question arises is the fault with the husband or with the wife. He may have had a destructive epididymitis, which might have caused impotency.

In the case reported by Dr. Epstein, where impotency followed the reduction by taxis of an inguinal hernia, it may have been due to an inflammation of the epididymitis excited by the hernia.

Many cases of impotency are imaginary, as mentioned by Dr. Holdt.

Dr. Iloway mentioned two cases, one an elderly, and one a young man, where impotency seemed to be caused by a diet not suited to the wants of the system. A more generous diet relieved the difficulty.

MEETING OF THE CENTRAL OHIO MEDICAL ASSOCIATION.

This Association met at the Board of Trade rooms, City Hall, December 8, at half-past ten o'clock, Dr. Nourse, the President, in the chair.

After some miscellaneous routine business had been gone through with, the subject of small pox was taken up. *Dr. Loving*, in commenting upon the disease, said that it was one of the prevailing diseases in the city, but it was not spreading, or prevailing to any alarming extent. The Health Officer was making exertions to control and check the disease, and had, by the help of physicians, done so to some extent. The disease had not been very virulent. It had spread from the city to the surrounding country. Vaccination was the sure protection, and physicians and others ought to agitate that subject until all were vaccinated. He believed in the humanized virus, and had no confidence in any other, and gave references at home and abroad to sustain him in his belief. He spoke of treatment, and said there was nothing new on the subject, in fact, that the whole subject of small pox had been discussed by the profession so much that it was exhausted.

Dr. Guerin followed Dr. Loving on this subject.

Dr. Wirth spoke of the petecchial form of small pox, and considered it a dangerous form of the disease.

Dr. Loving agreed with Dr. Wirth, that in attacks of small pox where the petecchiæ preceded the eruption, it was quite dangerous, but he had witnessed recoveries from such attacks of late.

The discussion was continued by Dr. Wagenhals.

Dr. Loving referred to statistics to prove that there were about six per cent. of individuals that would have a second attack of this disease.

Dr. Ferrell made some remark on the subject.

Dr. Wagenhals then alluded to an instance of a person having it the third time and died.

Dr. Wirth said that it was settled by the profession that there was absolutely no protection from small pox except in proper vaccination. He considered the hanging out of flags simply ridiculous, and gave instances where the diseases had broken out where they had been kept isolated and far from coming in contact with it. The disease broke out and prevailed in narrow and dirty alleys, filthy places, etc.

Dr. Landon spoke of the contagion and the virus by which it spread, and thought there was much small pox in the city, and it had spread to all the country round about. There had been deaths in Mifflin, Clinton and other places, and it was his opinion there was small pox now within a mile and a half of Worthington.

Dr. Wirth spoke of the scare produced by the yellow flag as being injurious and unnecessary for any community, as vaccination was the measure to be observed to protect all.

Dr. Wagenhals spoke of the necessity of the flags to prevent persons of peculiar susceptibility to the disease, from passing near the house where the disease was. He always took precautionary measures, and had attended a great many cases, and claimed that it was never spread by him in any way.

Dr. Ferrell discussed the importance of true genuine vaccination as being the only sure protection.

Dr. Landon gave instances wherein the flags hanging out were of utility in preventing the spread of the disease.

Dr. Wirth spoke of flags again, saying they could be removed according to the city ordinances, in ten days after the small-pox had disappeared from the house, and that they ought to be kept hanging out six months if *Dr. Wagenhals'* position was correct, that the virus of contagion would remain in clothing that long.

Dr. Wagenhals insisted that it would remain six months, and the instance he had cited proved it.

On motion, adjourned until two o'clock.

AFTERNOON SESSION.

The Association convened at two o'clock.

The order of business for the afternoon comprised the reading of a paper by *Dr. Morse*, subject, "Cerebro Spinal Meningitis," also, a paper by *Dr. Wirth*.

Dr. Morse proceeded with the reading of his paper, dividing the disease in three distinct forms, and giving the main character

istics of the disease, its nature and pathology, and the treatment that had in the main proven satisfactory.

Dr. Wagenhals spoke in confirmation of the views advanced by *Dr. Morse*, in the treatment of the disease and gave a case in which the great remedy advocated by *Dr. Morse*, "Permanganate of Potash" had been successfully used, and also a case where the remedy was very beneficial.

Dr. Morse stated in one epidemic through which he had passed. In nearly all the cases in which opium was used freely, the patients died, but in the use of "Permanganate of Potash," no such results were experienced,

Dr. Wagenhals had great faith in this remedy.

Dr. Wirth had very little faith in the remedy, it had failed in his hands, to produce the effects claimed by other gentlemen.

Prof. Pooley, of the Starling Medical College, here took exception to the use of the name "cerebro-spinal meningitis." It is a misnomer. He thought that the old name of "spotted fever" was a much better name. Tetanoid fever was preferable to either in expressing the true pathological condition. In the treatment he had used the Calabar bean to control the Tetanic spasms, and had seen good results therefrom.

Dr. Denig gave a history of a case in which he used as a remedy the "permanganate of potash," without good results. *Dr. Denig* agreed with *Prof. Pooley*, that Tetanoid fever more clearly expressed the true pathology of the disease.

Dr. Wirth approved of the views advanced by *Drs. Denig* and *Pooley*, but thought that cerebro-spinal meningitis was the proper name.

Dr. Halderman sustained the views of *Dr. Wirth*, and made some remarks reviewing *Drs. Denig* and *Pooley*, and thought there was no one pathognomonic symptom of this disease.

Dr. Ferrell had assisted in post-morteming a great number of cases, and that a majority showed no lesion of the spinal cord. After some further remarks, he moved that the discussion of the subject be deferred until next meeting, which was carried.

Dr. Wirth then read an elaborate paper on Anaesthesia, a disease of the nervous system, and discussed it under three heads.

On motion of *Dr. Landon*, the paper was received and placed at the disposal of the Society.

Dr. Wirth reported on the preamble and resolutions introduced by *Dr. Landon* at the last meeting, in relation to the establishment of a medical journal. He had presented them to the Academy of Medicine, and they had appointed two members of their Society, *Drs. Neil* and *Wirth*, to act with a committee of this Society. That these committees, with two professors of the two medical colleges, *Dr. Loving* of the Starling, and *Dr. Kinsman* of the Columbus Medical College, meet and devise measures for the establishment of a medical journal.

On motion, *Drs. Landon* and *Wagenhals* were appointed a committee to act for this Association.

On motion of Dr. Wagenhals, the chairman of the committee on Diplomas was instructed to proceed in the work of getting them out.

The Association then adjourned to meet on Thursday, January 6, 1876.

Correspondence.

CLEVELAND, O., *December, 1875.*

EDITOR OF LANCET AND OBSERVER:—In the December No. of *Lancet and Observer*, under the head of "Correspondence," is a criticism by one C. H. Warner, M. D., who appears to know all about the use of quinine and "such remedial agencies as are placed in our hands for the treatment of rigidity of the os uteri and inertia of the womb."

I would not notice the article, only that I desire to correct an expression which was made in the article referred to, that might be misunderstood: about the directions to use 7 grains of quinine every two hours. In the first place C. A. Warner M. D., shows an ignorance in figures in stating that thirty-five grains had been taken in the course of six hours. I called on my patient at 8 A. M., and it is presumed that I would wait by the woman one or two hours; then the prescription must be written, sent to the drug-store and the medicine brought to the house. It was noon when the first dose was taken, and two o'clock when the second dose was taken: the pains in the back being so severe that a third dose was not thought of. She only took *fourteen grains* of quinine.

Secondly—C. A. Warner, M. D., shows a lack of knowledge in the literature of the day when he expresses surprise at the fact that quinine was given "when there is no malarial affection, nor in fact any disease." He should know that quinine is used to-day by very many instead of ergot and with far better results, as regards the termination of labor—the lying in state. The fact is I *always* use quinine in tedious labors and *never* use ergot.

Yours very truly,

E. E. RIOPEL.

Editorial.

Our subscribers, one and all, individually and collectively, we wish you a Happy New Year. That our National Centennial year, may be a year of joy and gladness, bringing to every one, health, happiness, peace and prosperity. With the beginning of the year the LANCET AND OBSERVER goes to you in an enlarged form. The constant encouragement of the friends of the Journal, has induced us to take this step, and if sustained, we look forward to further enlargement, as the progress of medicine and the profession may demand. This number of the journal is sent to each subscriber for 1875, if you desire its continuance, please notify the publisher at once.

The following papers sent us for publication are unavoidably crowded out of this number, and will appear in the February issue.

Vaccination, by W. C. Chapman, M. D., of Toledo.

Vaccination, by Wm. B. Davis, M. D., of Cincinnati.

Median Lithotomy, by J. H. Pooley, M. D., of Columbus.

Pruritis Pudendi, by J. R. Black, M. D., of Newark, O.

A Plea for Higher Medical Culture, by C. H. Newcomb, M. D., of Mechanicsburg, O.

Digitalis, by A. Patton, M. D., of Vincennes, Ind.

Puerperal Fever and its Relations, by E. B. Stevens, M. D., of Syracuse, N. Y.

Gonorrhœa, by T. C. Minor, M. D., of Cincinnati.

Proceedings of Clark Co. Medical Society.

Proceedings of Cincinnati Medical Society.

Prof. J. H. Pooley's Clinic, by Dr. M. Driscoll. With Reviews of the following works :

Phthisis, by Prof. A. Flint.

Physiology, by Prof. A. Flint, Jr.

Ziemssens Cyclopædia, vol. 5.

Leishmans System of Midwifery.

Hints on the Obstetric procedure, by Atkinson.

Hospital Construction and Organization.

Our object, To publish a Medical Journal, so large, cheap and valuable, that every member of the Medical Profession in the West will think he can not afford to be without it, and to make the *Lancet and Observer* a representative exponent of Western medicine.

In commencing a new volume of *THE LANCET AND OBSERVER*, and at the first signs (an enlarged Edition), of its consolidation with the *INDIANA JOURNAL OF MEDICINE*, we wish to speak directly to the Profession of Indiana and the former patrons of the latter Journal. Indiana has in many respects been behind her sister state. The blood of her sons and the prosperity of her present inhabitants demands that more energy in certain directions should be manifested. Literature with now and then an honorable exception has been *nil*, not so much from the want of talent as disposition to engage in anything that has not the sparkle of a dollar in it, no race of people, or individual, who persistently neglected to cultivate and encourage such tastes, fails to fall behind in many other respects as well. Colleges may be commenced and continued, first, because the teachers find it to their interest, outside of the actual money taken in from the school, and second, students crave a diploma; but a Medical Journal is seldom started from the belief, that any "wealth" will flow therefrom; and it is but seldom taken, but with the desire to keep posted, or to encourage the enterprise for such benefits for others.

The success of a Medical Journal both financially and otherwise, depends in a large degree upon the patrons of such Journal, *not* upon the *Editors*, if you subscribe and *pay* for it, contribute good articles for publication, report cases in it, it is doing as little as your duty will permit.

We call upon the profession of Indiana, to continue the support of *THE LANCET AND OBSERVER* as of old, and upon the former patrons of the *INDIANA JOURNAL OF MEDICINE*, to encourage the Consolidated Journal.

THAD. M. STEVENS.

Suspended.—"The Kansas City Medical and Surgical Journal," and "The Leavenworth Medical Herald."

The publication of the "Central New York Medical Journal" is indefinitely postponed.

"The Louisville Medical News," is the latest candidate for professional honors. It is to be issued weekly with R. O. COWLING, M. D., *Editor*.

Clinics.

Prof. J. H. Pooley's Surgical Clinics of November 6th, 13th and 20th, 1875, at Starling Medical College, Columbus, O. Reported by McKendrel Diseroll. Clinic of November 6th, 1875.

Oscar Smith, æt. 8, born in U. S. This little boy had undergone, October 30th, a removal of the right tonsil, the operation having been performed to relieve the consequences of hypertrophy, i. e., labored respiration and difficult deglutition. Upon inquiry it was made known, that the child had been quite sick since the operation; he had had a chill, and quite a considerable amount of fever ensued. A close inspection revealed the fact, that, upon the surface of the tonsil, upon which Tonsillotomy had been performed, there was a white deposit of diphtheritic character. Taking into consideration the child's condition, it was not considered judicious to operate on the other, tonsil, for which proceeding he was taken to the College on this occasion.

Clara Smith, a sister of the above, æt. 9, born in United States. The father being present, the following facts were elicited: From two years of age Clara had been very feeble; had had violent attacks of pain in the chest; had complained of pains in the limbs, for about one year; had coughing spells, attended with difficult respiration. On percussion, abdominal dullness in the præcordial region was found to exist; this was of a moderately dull character; Auscultation brought out the fact that the action of the heart was somewhat violent; the first sound was attended with an abnormal click. Taking into consideration the above facts, as well as that the child was anæmic, had an unhealthy color, and a dry, rough skin, the Professor diagnosticated "sub-acute rheumatism," advised the father to have a physician see the child during the attack of pain, for, being present during an exacerbation, would likely assist in the better understanding of the case. It was said that the heart was involved, but to no very great extent. The following was ordered, in doses of two teaspoonfuls three times a day: *R.* Cod-liver oil, \bar{z} iv; syr. iod. iron, \bar{z} ij. *M.*

Laura Anderson, æt., born in United States. This patient had been an occupant of the St. Francis Hospital for quite a long while, during the session of 1874-5, under the superintendence of Prof. Hamilton, the Professor of Surgery and Clinical Surgery at "Starling," and now, as then, under treatment for indolent ulceration of both legs, the ulcers being of a scrofulous origin, that being the patient's diathesis. The case had been shown on another occasion of this session, and the treatment followed was strapping of both legs with adhesive plaster. The following had been given, and was to be continued; *Iod. Pot.* \bar{z} i, *Cit. Iron*, \bar{z} ii, *Aqua*, \bar{z} vi. By the employment of this treatment according to order, the condition of the patient had been rendered better. The ulcers which, in the first place, gave no indication of healing, now presented a passable appearance, and in all probability, if no accident contravened to prevent, would soon heal.

Nov. 13, Clara Smith, æt. 9, born in United States. This patient visited the college on the 6th ult. when her trouble was diagnosed sub-acute Rheumatism with slight involvement of heart. It was by the father, who was present, that, on the 12th inst. the child had had an attack of pain in the præcordial region, the attack being attended with much anxiety and terror on the part of the patient, which, it was said, was a characteristic of cardiac pains. On auscultation the same sounds heard on November 6th, were again heard; there was no doubt but that the heart was irritated, and the exaggeration of action, which was present, naturally followed. To relieve the pain in the limbs, they were to be wrapped up for the length of twelve hours with carded cotton and oiled silk; this was to be done in the commencement of the pain. In addition to the Cod-liver oil and Syr. Iod. Iron, Tr. Digitalis, in doses of gtts. v. three times a day. Great care of the child was enjoined upon the parent.

Reviews and Notices.

Archives of Dermatology. By L. DUNCAN BULKLEY, A.M., M.D.,
Vol. 1st. G. P. Putnam's Sons, Publishers. New York, 1875.

Since the cessation of the "American Journal of Syphilography and Dermatology," some months since, no American quarterly publication devoted especially to skin and venereal disease, except Bulkley's, has been worth the price of subscription. The rapid strides this journal has made in professional favor has been entirely owing to the able manner in which it has been edited and conducted. Always furnishing the latest foreign and domestic intelligence concerning the special topics to which it is devoted, it stands to day without a rival. Its able *corps* of collaborators, including the best known names in the special department of skin diseases; the host of translators who enrich its columns with the latest cullings of European medical literature, combine at once to render the pages of the journal more than attractive. Vol. 1st of the *Archives of Dermatology* has been reprinted and published in book form, making a handsome tome of 380 pages. It is printed on tinted paper and superbly bound. Within its cover an infinite variety of well selected and readable matter is contained, including among other interesting matter the following papers: Rotheln, by J. Lewis Smith; Notes on Urethral Stricture, by Bumstead; Elephantiasis of the Penis, by Robert Weir; Tertiary Syphilis; by Drysdale; Notes on Lichen Planus, by Taylor; Varieties of Urticaria, by Damon; Herpes Contagiosus Varioliformis, by Foster; Clinical Contribution to Syphilology, by Van Buren and Keyes; Scleritis Syphilitica, by Fred. R. Sturgis; Lichen Ruber, by Dr. Koposi, of Vienna; Syphilis of the Mouth, Throat, and Larynx, by George M. Lefferts; Pityriasis Rheumatica, by Kinnicut; Spasmodic Urethral Stricture, by F. N. Otis; Classification of Disease

of the skin, by Piffard; Pityriasis Rubra, by Fox; Molluscum Simplex, by Prof. Oosterlony; numerous papers, by Dr. Bulkley; Transactions of the New York Dermatological Society, etc., etc. The low price at which this publication is offered places it at once within reach of the mass of practitioners, who can ill afford to purchase the more expensive, but less attractive text books on the subject of skin diseases.

T. C. M.

State Medicine in its Relations to Insanity. By NATHAN ALLEN, M. D. Boston, 1875.

This is a reprint of an address delivered before the American Social Science Association on May 13th, 1875. The name of the

distinguished author is a sufficient guarantee for the soundness of the opinions expressed in this paper. The duty of the state in caring for its insane is well set forth, and the paper contains many points which might be used with advantage by members of the various State Legislatures. Numerous statistics regarding insanity in the New England States are given. The paper is interesting and valuable.

T. C. M.

Report of the Board of Health of Philadelphia.

This volume contains 402 pages, made up largely of Vital Statistics of the Quaker City. The statistics contained therein are those of the year 1874. The first twenty pages give a full list of all vessels arriving in that port examined by quarantine physicians. Judging from a comparison with previous years, the shipping interests are largely looming up. The number of passengers entering Philadelphia by vessels were 10,878 against 4,462 for the year previous, and 136 for the year 1872. The new American Steamship Line accounts for this rapid increase. In the city of Philadelphia the Street Cleaning Department is conducted by the Board of Health, under an act passed by the Pennsylvania Legislature, March, 1869. The contract system prevails, and from the large amount of money spent by the board we judge that some "corruption" exists in that body politic.

A comparison of the relative costs of street cleaning in the various cities of the United States, shows that Philadelphia newspapers must be interested in the "rings" of that city, for the enormous sums of money expended in removing garbage and ashes indicate the need of a public agitation against such monopolies as exist in the Board of Health. We have heard of no newspaper in that Borough, that has, as yet, lifted its voice against the plunderers and thieves of the Street Cleaning Department. The following will show the cost of running such an expensive machine.

New York City, 1875, (no contract).....	\$1,028,478
Boston, 1875,	300,000
Baltimore, 1875, (no contract).....	187,000
Philadelphia, (contract for 1875-6-7) (contract).....	1,007,647
St. Louis, " 1874 (contract).....	172,213
Cincinnati, " 1873 (no contract).....	127,904
Chicago, " 1873 (contract).....	\$119 per day.

Still the Philadelphia Board of Health makes strong claim to being economical.

The statistics of marriages, births and deaths are very interesting and valuable, showing an increased birth rate and a decreased death rate. Boards of Health, *it is noticeable*, can decrease their death rate in any one year by simply increasing their estimated populations. Some American cities which are notoriously unhealthy, show a very low death rate and an enormous population, (the latter on paper). One live child was born to every 41 of the aggregate population; one out of every 58 of the aggregate population was married, and, one out of every fifty of the population died.

The following shows the number of persons living to every one born in some of the cities and countries of the world.

United States (Census) 1870	Births to 1,000 persons living.....	28-86
England, " 1861-70	" "	35-2
London, " 1861-70	" "	35-2
Prussia, " 1861-70	" "	39-6
Austria, " 1861-70	" "	39-8
France, " 1861-70	" "	26-2
Berlin, " 1873	" "	37-05
Massachusetts, " 1857-70	" "	26-83
Rhode Island, " 1857-70	" "	26-83
Boston, " 1863-72	" "	30-86
Providence, " 1856-73	" "	27-23
Philadelphia, " 1870-73	" "	24-88
England, " 1874	" "	36-10
New York, " 1874	" "	24-46
Philadelphia, " 1874	" "	23-86
Brooklyn, " 1874	" "	17-04
St. Louis, " 1874	" "	11-31
Chicago, " 1874	" "	22-87
Boston, " 1874	" "	31-18
Providence, " 1874	" "	26-10
(Vide Report)		

The greatest number of conceptions in Philadelphia occur in April; then January, March, December and November. We judge from this that people are fonder of double beds in cold than in hot weather. 19,387 (including still births) children were born in 1874. 6,639 marriages were solemnized; showing a decrease of 1,252 from the year previous. The "panic" seems to have kept men out of matrimony; "hard times" always increases the crop "of old maids." The Methodist Church seems to solemnize the most marriages; following it, the Catholic, then the Episcopal, the Presbyterian comes fourth.

The number of actual deaths were 15,238. The following table is published, showing the mortality in various American cities, (p. 219).

**Death Rates in some American Cities during the year 1874, taken from the Sixth Annual Report of the State Board of Health of Massachusetts.*

CITY.	Estimated Population.	Deaths per 1,000.	CITY.	Estimated Population.	Deaths per 1,000.
New York.....	1,041,000	27.61	Memphis.....	50,000	22.96
Philadelphia.....	775,000	19.54	Lowell.....	49,000	24.12
Brooklyn.....	450,000	24.46	Cambridge.....	48,000	24.56
St. Louis.....	400,000	16.27	Hartford.....	45,000	12.86
Chicago.....	395,000	20.31	Fall River.....	44,000	26.75
†Baltimore.....	350,000	21.14	Reading.....	42,000	18.66
‡Boston.....	331,000	23.60	St. Paul.....	40,000	16.03
Buffalo.....	175,000	18.46	Paterson.....	38,000	23.35
Cleveland.....	145,000	16.69	Portland.....	35,900	19.08
Dis. of Columbia.....	150,000	19.72	Lawrence.....	33,000	23.45
“ “ white.....	110,000	15.71	Springfield.....	33,000	18.33
“ “ col’d.....	40,000	30.77	Utica.....	32,000	16.42
Pittsburg.....	137,000	24.69	Lynn.....	31,000	20.45
Newark.....	115,000	29.16	Quincy, Ill.....	30,000	18.76
Detroit.....	110,000	21.69	Springfield, Ill.....	30,000	12.23
Milwaukee.....	100,000	19.03	Fort Wayne.....	30,000	17.30
Providence.....	100,000	19.86	Savannah.....	29,000	35.38
Albany.....	95,000	15.30	Terre Haute.....	25,000	12.20
Allegheny.....	75,000	19.77	Norfolk.....	24,000	18.08
Richmond.....	65,000	24.47	Dubuque.....	22,000	12.32
§Syracuse.....	60,000	15.20	Augusta.....	20,000	28.65
New Haven.....	58,000	19.50	Bangor.....	20,000	15.65
Toledo.....	55,000	10.90	Omaha.....	20,000	11.60
Troy.....	50,000	29.00	Norwich.....	18,000	21.35
Charleston.....	50,000	38.96	Concord, N. H.....	14,000	13.15
Worcester.....	50,000	20.46	Newport.....	13,000	12.30

*As given by the registrars in answer to inquiries sent to one hundred cities. The very low mortality of some of the cities suggests the idea that the registration may not have been complete.

†From October 31, 1873, to October 31, 1874.

‡Including all annexations.

§Exclusive of 75 drowned in the flood of July 26.

We regret exceedingly that time and space will not allow a fuller review. Compared with the “Health Reports” of other cities, this will be found wanting in the chief value of such reports, *i e*; *reliability* of mortuary returns. If we mistake not some of the Medical Journals of Philadelphia first called the public attention to this fact. The Board should be re-organized and more physicians placed on it. We notice the name of only one well known Sanitarian in the entire Board, *i e*; Dr. Samuel Ashurst. So long as Boards of Health have street cleaning contracts to give out, just so long will the same “Boards” be filled up by men who crave after the spoils of office; and who care nothing about the dear public, outside of what they can steal from it. Philadelphia has long prided itself on being a medical centre, and it is a matter of wonder that its physicians do not bestir themselves, and take their Sanitary Board out of politics.

T. C. M.

Obituary.

CINCINNATI DECEMBER, 1875.

MR. EDITOR:—It seems proper that the Resolutions which the Profession at Lexington, Ky, have adopted as expressive of their sentiments, upon the death of Dr. Jackson, should be published outside of the state in which he lived and died, and, in your Journal, which has been enriched by his contributions.

He was known to, and greatly admired by very many beyond the Profession of his state, and they will be glad thus to reiterate the feeling, to which those, who knew him best, have given expression.

The writer had known Dr. Jackson intimately for many years. Others will give the Biographical details, which I can not. Where and how his maturer manhood, and character were developed, are matters of interest, in a full conception of his life and its results, and deserve a record. We desire to speak of him as he presented himself to us, during our acquaintance, and up to within a short period of his death.

Dr. J. would have been properly presented at any time, as the highest type of a man and a physician. He was possessed of the most unaffected modesty, behind which there stood, a force of character and a reserve of talent, equal to any emergency. We recollect well his forcible disclaimer of any entitlement to the high official distinction, which the American Medical Association bestowed upon him, when we informed him of it; it was thoroughly characteristic. He cared nothing for the public rewards which the Profession has to give, and never sought them, yet his association with his brethren in individual and organized work, was a great pleasure to him.

His professional life was marked by great singleness of purpose. His work was persistent, conscientious and perfected in genuine love for it. The sphere of it was comparatively limited, yet we have abundant testimony of its usefulness beyond its circumscribed centre. He recognized the importance of an advanced standard of medical education, and gave much time to his students. He made his impress on them, and we know that they had, a true and filial admiration for him. He surrounded himself as far as possible with the means of culture, and sought them, at frequent opportunities, in the centres of professional life.

He was a man of pure character; of the highest professional tone, and most abhorrent of all kinds of shams; his memory was retentive, and his references reliable; his judgment clear and careful, and its executions insured by his practiced character and energy. No body of working men can afford to lose such members. His influence was ever widening and would, necessarily from the elements embodied in the man, have brought within its circle the whole profession, had his promising career not been cut off by his death. Though greatly desiring to live, yet when within a short time of his death, we told him of his prospects, he spoke with plainness and courage of his fate. His life was one which may fitly be placed in the perpetuated records of a noble profession.

IN MEMORIAM.

A TRIBUTE FROM PHYSICIANS OF LEXINGTON AND SURROUNDING COUNTRY
TO DR. JOHN D. JACKSON OF DANVILLE.

In pursuance to a call for a meeting of the Medical profession of Lexington, Fayette county, Ky., in expression of the deep sympathy and sorrow felt at the death of Dr. J. D. Jackson, who died Wednesday at Danville, Ky. Dr. Desha was called to the chair, and Dr. Dudley appointed secretary.

On motion of Dr. Todd, the chair appointed Drs. Todd, Skillman, Stockdell, Bruce, Dillard, and Sweeney; Drs. Carter and Poynter, of Woodford county, a committee to draft a preamble and resolutions. The chairman, Dr. Todd, then read the following

PREAMBLE AND RESOLUTION:

Having learned, with profound regret, of the death of Dr. John Davis Jackson, which occurred at the residence of his brother, near Danville, on last evening, we, physicians of Lexington and surrounding country, have assembled with heavy hearts, to express our sincere sorrow at this sad event, and bear testimony, though feeble to the worth of our beloved friend and noble confrere. Knowing full well our inability to do justice to the memory of so justly distinguished a physician, upon an occasion like the present, and

WHEREAS:—Dr. John D. Jackson occupied the honorable position of First Vice-President of the American Medical Association, conferred for the first time upon one so young, and had filled a very large space in the eye of the medical profession throughout our entire country, had lived and died, endeared personally and professionally, to so many of the most distinguished and eminent men of our profession. Therefore be it

Resolved, That with intense regret we bow in humble submission to this mysterious Providence, which snatches our Brother from our midst, in the full flush of manhood's prime, quenching light hopes, and ending a bright career.

Resolved, That in the death of Dr. Jackson the Medical Profession mourns the loss of a member, of whom it were impossible to speak, save in terms of warmest eulogy; a scholar thoroughly instructed in its literature and science, and devoted to the preservation of its purity, a writer who has enriched its journals with his varied learning and wisdom; an author celebrated at home and abroad.

Resolved, That the community in which he lived, has thus been deprived of one of her truest and noblest safe-guards. An active and learned physician; skillful and beloved, where he devoted the best efforts of a well spent life, as also in training and instructing pupils, who shall ever cherish his memory, and speak his name with pride in far distant years.

Resolved, That we hereby tender to the profession of Danville, and to the Brothers' family of our friend, our heartfelt condolence.

Resolved, That the secretary be requested to furnish a copy of these proceedings, to the President of Boyle county Medical Society, Kentucky Central Medical Association, and State Medical Society of Kentucky—as also to the Medical Journals of our State.

The foregoing Preamble and resolutions, being submitted to the meeting, were adopted unanimously.

JNO. R. DESHA, *Ch'mn.*
B. W. DUDLEY, *Sec'y.*

Dec. 9, 1875.

THE CINCINNATI LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.

T. M. STEVENS, M. D., Asst. Editor.

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Original Communications.

Art. 1.—VACCINATION AS A PREVENTIVE OF SMALL-POX.

By W. C. CHAPMAN, M. D., Toledo, Ohio.

Although there has been much written upon the subject of small-pox, and the methods which have been instituted for the prevention of its development and spread, still at the present day epidemics of the disease do occur at various times in different localities to such an extent that much apprehension is occasioned in any community in which it appears, and the question arises, Why, if vaccination is efficacious as a means of prevention, the disease has not been banished forever from the face of the earth. It is well also to inquire to what extent the medical profession is responsible for its appearance. At the present time Cincinnati and many other cities are being visited by an epidemic of small-pox. In the first named city a mortality is reported from this disease which is astonishingly great. If, as has been intimated by the public press, a portion of the medical profession have advised a disregard to the operation of vaccination as a prophylactic measure, it is certainly to be deplored. The following, taken from a daily paper, certainly shows a prejudice as existing in the minds of

some of the profession which is unaccountable: "The existence of small-pox as an epidemic in this city is directly traceable to an unreasonable and fatal prejudice on the part of a portion of our citizens against vaccination. Five years ago half a dozen German physicians in Cincinnati began to oppose vaccination. They were physicians of large practice among their own people, and their influence resulted in building up an antipathy to this means of preventing the pestilence that would be unaccountable, were we not familiar with the cause. The legitimate results have followed, small-pox is in our own midst, and 75 per cent. of its victims are taken from the very class referred to. The statistics of the Health Office show further that a very large proportion of the deaths is of children *under five years of age*. These facts certainly seem to locate a good share of the responsibility."*

It is not alone the mortality tables that demonstrate the losses sustained by a community by reason of the prevalence of a small-pox epidemic. A very able paper presented by Dr. Benjamin Lee, of Philadelphia, to the Public Health Association at its meeting in Baltimore, shows "an approximate determination of the loss sustained by the city of Philadelphia, in dollars and cents in consequence of the presence of small-pox in the winter of 1871-72, and placing side by side with this the degree in which this loss might have been prevented by judicious sanitary legislation rigidly enforced." The total loss sustained during the epidemic of those years is placed at the enormous figure of nearly twenty three million dollars, and Dr. Lee believes that 90 per cent. of the cases and 97½ per cent. of the deaths could have been avoided, and that less than three quarters of a million dollars would have represented the total loss by sickness, death, and disability. Averaging the value of a human life, he finds that the actual loss sustained by reason of sickness, death, and disability was nearly sixteen and a half million dollars.

When such statements as the foregoing are presented to the public, every one naturally asks the question, why proper attention is not given to the subject by those who are supposed to be responsible for the health of the community. To some extent the medical profession, no doubt, is blame-worthy, in not giving more attention to the enforcement of those operations which are known as being competent to stamp out the disease. The general public, however, are to be censured in resisting the attempt which has been made to institute prophylactic procedures. This dislike arises, to a great degree,

*Cincinnati Gazette, December 10, 1875.

from an ignorance upon the part of the people as to the nature of the operation of vaccination, and a dread that in the introduction of the vaccine virus, other poisons may enter the system, to remain there through life. A thorough presentation of the whole subject of vaccination can not but result in great good to all concerned; and a proper attention to the performance of the operation itself by the profession will tend to give that confidence which is so much needed in any community. It is a fact that some mothers have such a dread of vaccination that fear engendered by an epidemic of small-pox is scarcely able to force a consent to its performance.

It is with the intention of presenting, as clearly as possible, the various questions arising in a consideration of the operation of vaccination, that this article has been prepared; hoping that, while the profession may find some points which may be of value, others who are interested in the public welfare may also become somewhat acquainted with the nature of the operation, and that by a candid presentation of all the points involved in a discussion of the question, much of the existing prejudice may be overcome.

In order that a thorough understanding of the benefits which have been derived from the introduction of prophylactic measures may be arrived at, it is well to briefly review the history of the origin and spread of small-pox in former centuries with its attending frightful mortality.

There is scarcely any portion of the habitable globe that has not been visited by this disease, and it is therefore difficult to ascertain the locality in which it originated. Many opinions have been given by various writers as to the time when, or the place where, it first appeared. There is a difficulty in the way of clearly tracing the time of its origin, on account of the confusion existing in the descriptions given by early writers of all the then prevailing diseases. Nearly every disease that was at all fatal was called the *plague*, and it was a long time before measles and small-pox were considered as separate diseases.

In the siege of Alexandria much valuable information, which had been preserved in the writings of Ahron, were destroyed. He was considered as the first who wrote upon the subject of small-pox. Some have endeavored to prove that the disease first made its appearance among the Greeks and Romans, others that its origin dates back many centuries, and was known in China and India. The writings of many go to prove that about the time of the birth of Mahomet, the small-pox suddenly appeared in Arabia, and Procipius describes a disease

which made its appearance at Pelusiam in Egypt, about the year 544 A. D., and from thence carried into Turkey. In all its characteristics it closely resembled the small-pox of the present day. Authorities do not agree, however, on this point; many suppose that he described the *bubo-plague* which was known to infect Egypt.

In the year 569 the Abyssinian army, which had besieged Mecca, was compelled to retreat on account of the terrible ravages made by this disease. The belief that small-pox was first known about this time is further confirmed by the writings of Bruce, an African traveler, who found, in a manuscript portraying the events of this war, an extended account of a disease with similar characteristics to small-pox.

The defeat of the besieging army surrounding Mecca was looked upon by the Arabians as a miraculous interposition in their favor. Gibbon thus refers to the invasion of Arabia by the army of Africans: "The Kingdom of Yemen was subject to the Christian Princes of Abyssinia, their vassal Abrahah was provoked by an insult to avenge the honor of the Cross; and the holy city was invested by a train of elephants and an army of Africans. The want of provisions or the valor of the Koreish compelled the Abyssinians to a disgraceful retreat. Their discomfiture has been adorned with a miraculous flight of birds, who showered down stones on the heads of the infidels; and their deliverance was long commemorated by the era of the elephant."*

Moore considers that the fact of the existence of small-pox in China and India in remote ages as clearly proven. "This belief is founded upon a work written in China in the year 1120 B. C., "Treatise on Small-Pox" (Teontahinf), which contains a collection of the oldest medical knowledge of the Chinese concerning the disease. It is also reported from India, that long before the birth of Christ, a particular Goddess had been worshiped as protectress against the disease, and also that from a remote period her priests practiced the inoculation of small-pox for protection against the disease."†

If the small-pox had existed for a long period of time in either India or China, it would have been impossible for the surrounding nations to have been free from its influence. It is well known that there existed an extensive mercantile intercourse between India, Egypt, and adjoining countries for centuries. If the disease had existed in the one, it would certainly have been transported to the other. Dr. Woodville

*Decline and Fall of the Roman Empire.

†Curschmann, Ziemssens Cyclopædia, Vol. II., p. 321.

concludes that there is much doubt in regard to the antiquity of small-pox in India. He considers that so contagious a disease as small-pox could not have existed in the East without having been transferred to other nations. He thinks the disease was introduced into India from Arabia.

The Arabian physicians were first to describe the disease, and to give therapeutical directions as to its management. Among the number may be mentioned, Rhazes, Avicenna, and Hali Abbas, these three being the more prominent.

If it is certain that the disease described by Procopius, which made its appearance in Egypt in the year 544, was true small-pox, it is possible or even probable that the disease originated in Africa, and the fact of the epidemic springing up in the African army of Abrahah as it besieged Mecca, twenty five years thereafter, would show that perhaps the *true bubo-plague* and *small-pox* had a common point of origin in Africa. It is certain that after the disease had appeared in Arabia it rapidly spread into India and other adjacent countries, so that, toward the end of the sixth and beginning of the seventh centuries, Palestine, India, Egypt, and Persia were all suffering from the dreadful scourge.

Europe was not long free from its invasion. The fact that intercourse was yearly increasing between nations, the way was open for the introduction of the infection. The date is not fully established at which it appeared in this country. Gregory of Tours speaks of a disease which appeared in southern Europe in the year 581. From the description given by him, the character of true small-pox is made apparent. There are those, however, who consider that with the invasion of Europe by the Saracens the disease was introduced. It is, however, probable that it had been known in this portion of the globe many years before the Saracen invasion.

In the Harleian manuscripts, published some time before the year 900, the word *variola* is used, and Moore, in his history of small-pox, states that the word occurs in the Bertinian Chronicles published in the year 961. The dread in which the disease was held by the people is shown by the following prayer found in the first named manuscript: "In the name of the Father, of the Son, and of the Holy Ghost, Amen. May our Saviour keep us. Lord of Heaven, hear the prayers of thy men servants and of thy maid servants, O, Lord Jesus Christ? I beseech thousands of angels, that they may save and defend me from the fire and power of the small-pox."

Gradually the disease spread through all Europe, England, France, and Germany. All dreaded its ravages, their seeming

to be no power to stay it in its march of destruction. After the discovery of America the disease followed emigration, appearing first in Mexico in the year 1527. In the city of Mexico alone, it is stated that three and a half millions of people were destroyed in a very short period of time. During the eighteenth century, one-tenth of the population of the globe died, while one-tenth more were disfigured by its ravages. In Europe 400,000 persons died annually from this cause alone. Dr. De Renzy, Sanitary Commissioner for the Punjab says (at the present time in this province, with a population of 18,000,000, the deaths from small-pox are never less than 20,000 a year; in 1869 they numbered 53,195): "In England, in the seventeenth and eighteenth centuries, seven to nine per cent. of all deaths were attributable to small-pox. In Berlin, from 1783 to 1797, one-twelfth of the total mortality, according to *Casper*, was due to the same. In the fourth number of the 'Archiv der Aerzte und Seelsorger wider die Pockennoth' of the year 1798, *Von Junker* computes the deaths occurring from small-pox in the year 1796, among the 7,000,000 inhabitants of Prussia, at 26,646 (*Kussmaul's letters*). In the eighteenth century 30,000 died annually of small-pox in France. Of the resignation to the disease exhibited in the middle ages, a proverb of that time gives the best proof, 'From small-pox and love but few remain free.' *

The question arises, when considering that small-pox is so universally distributed over the world, as to whether there may not have been many points of origin for the disease, and that no locality can be properly selected as the one where it was primarily developed. There is no doubt that, under exactly the same conditions as were presented when the disease first made its appearance, small-pox may spring up independently of contagion. One writer has said: "It is evident that small-pox was either coeval with the creation, or had a subsequent beginning; and it is an inference deducible from the first principles of reasoning, that the same causes which originally produced, may reproduce it without contagion." †

Theoretically this idea may be true, but at the present time nearly all writers conclude that the disease is now only developed and spread by infection and contagion. Dr. Gregory, in reviewing this question, remarks: "The pathologists of the last century, from the time of Boerhave, reasoning from the very peculiar train of symptoms observed in small-pox, and from the comparative recent date at which it became known, adopted

* Curschmann Ziemssen's Cyclopædia, Vol II., p. 324.

† Col. Wilks' account of Southern India.

the notion that this disease is in all cases the product of a specific poison or contagion received in the blood from without. Such is still the general opinion of the best informed physicians. It can not indeed be denied that great difficulties are experienced in tracing the source of contagion in numberless cases, and that the doctrine of *spontaneous* origin admits of being supported by some ingenious and plausible arguments; but the weight of evidence is decidedly in favor of the invariable origin of small-pox by *contagion*.”*

Considering the active contagiousness of small-pox and the frightful mortality which attended its development, it is no wonder that “astonishment and terror accompanied this affection in its progress, and men began to dread the extinction of the human race by such a cruel visitation” (Robertson). In the almost utter uselessness of all therapeutical procedures, there remained but one way by which the disease could be successfully combated, and attempts were made to discover a method by which its development could be resisted.

A strange operation is reported as being common in China during the first century: it was called *sowing* the small-pox, and consisted in snuffing powdered crusts, from small-pox patients, up the nose, or mixed with water they were placed into the nose, thus infecting the system with the disease. Shaw mentions that inoculation was practiced in India as early as the time of Christ. And Mr. Colden mentions in a work, which he published, that the operation was known to the Africans. He says: “I have lately learned from my negroes that it is a common practice in their country, so that seldom any old people have the disease. They generally inoculate all their young as soon as the infection comes into the neighborhood. They tell me, that in the regimen under it, they only abstain from all flesh meat, and drink plentifully of water acidulated with juice of limes.” If the facts given above, as regards the performance of inoculation in China and India during the first century were clearly proven, it certainly would show that small-pox was a disease of antiquity; but there is much reason to doubt the truth of the writings referred to. “The early antiquities of China and India have become nearly synonymous with fable. In China the first appearance of small-pox is fixed by one authority, with specious accuracy, at 1122 years anterior to the Christian era, before which period it was unknown; and at least as remote an origin is claimed by the legends of India. In that country we find apparent indications of long experience in the treatment, rather than

*Cyclopædia of Practical Medicine, Vol. IV., p. 167.

the legendary history of the disease. That the presiding deity is a low bred goddess, whose temples are never approached by a Brahmin, and are frequented exclusively by the outcasts, furnishes little ground of inference; but the immemorial practice of the Brahmins of Orissa, near Ganjam, of inoculation by means of a sharp steel instrument, of exposure to the cool open air, to prevent the confluent disease, and even cold affusion for a day or two before the eruptive fever is expected, although indicative of successful experience, affords no evidence of antiquity beyond the sixth century.”*

Inoculation was practiced in many countries before it was introduced into England. During the latter part of the seventeenth and early part of the eighteenth centuries, the process was employed in Turkey, Wales, Denmark, and other countries. Dr. Timoni, a Greek physician, has the credit of bringing the subject prominently before the medical profession. In a letter, dated 1713, to Dr. Woodward, he mentions the fact that, on the introduction of the operation into Turkey, it was rejected, but afterward was adopted. It seems that the physicians were willing to adopt the procedure, but it was difficult for them to induce the people to accept it. In England no one advocated its introduction until in the year 1717. Lady Whortley Montague, then absent from London, wrote a letter from Adrianople advocating very enthusiastically the adoption of the measure. Among other things she says: “The small-pox, so general, and so fatal amongst us, is here entirely harmless by the invention of *engrafting*, which is the term they give it. There is a set of old women who make it their business to perform the operation every autumn, in the month of September, when the heat is abated. People send to one another to know if any of their family has a mind to have the small-pox; they make parties for this purpose; and when they are met (commonly fifteen or sixteen together), the old women come with a nut-shell full of matter of the best sort of small-pox. Every year thousands undergo it, and the French Ambassador observes pleasantly that they take the small-pox here, by way of diversion, as they do the waters in other countries. There is no example of any one that has died in it, and you may believe I am well satisfied of the safety of the experiment, since I intend to try it on my dear little son. I am patriot enough to take pains to bring this careful invention into fashion in England.”

Dr. Gregory gives the following account of the actual introduction of the operation into England. Speaking of Lady

*Col. Wilks' account of Southern India.

Montague, he says: "She kept her word, and to the spirit and enterprise of this lady, the introduction of inoculation into this country is due. It was not until her return to London that any attempt was made to profit by a discovery which had been announced for five years; and her daughter was reserved to be the first example of inoculation in England. This event occurred in April, 1721, and as its success was complete, Dr. Keith, who had been witness to the experiment, submitted his child to the same process, and with a like happy result. Several months elapsed, but the medical profession of London still remained sceptical; some because the practice originated with ignorant old women, and others from inability to understand the rationale of the process."*

In our own country Dr. Boylston introduced the process. During the year 1721, six deaths were reported, out of 244 persons inoculated in Boston. During the year 1722, two children of the Princess of Wales underwent the operation successfully, but about the same time several deaths occurred from the practice. This brought disfavor upon the operation in the eyes of both the profession and the public.

After years of experience it was found that, although inoculation most decidedly reduced the death rate among those upon whom it was performed, still the yearly mortality from small-pox was increasing. Moore, in his history of small-pox, states, "that at the beginning of the eighteenth century about one-fourteenth of the population died of small-pox: whereas, at the latter end of the same century, the number, notwithstanding, or perhaps, rather in consequence of inoculation, had increased to one-tenth; and this immense consumption of human lives was not the total evil; for many survivors were left with the partial or entire loss of sight, and with destroyed constitutions."

In the latter part of the eighteenth century, Baron Dimsdale published his work on "Inoculation for Small-pox." This was the last exhaustive treatise on the subject. Dr. Dimsdale was considered good authority, and inoculation gradually became more and more popular, notwithstanding small-pox was yearly increasing among the population. The slight risk of death was accepted by those who desired the operation, even with the knowledge that they themselves might be the media from whence the disease could spread, as readily as though they were suffering from natural small-pox.

It is this ability to spread the disease as readily through the community, from an inoculated case of small-pox, as from a

*Encyclopædia of Practical Medicine, Vol. IV., p. 172.

natural one, that should cause all to look with disfavor upon the operation. It is impossible to say what might be the practice at the present time, if the discovery of Jenner had not substituted a different and more simple mode of prophylaxis. Possibly inoculation could have been so practiced, under proper restraint, as to protect all from the spread of the disease. It is, however, unnecessary to consider the procedure as at all warrantable, since the protective power of vaccination has been fully demonstrated.

It is doubtful whether there has been a discovery made in the whole range of medical science, that has bestowed such a blessing on mankind, as the one which proved that the small-pox could be prevented by the substitution of another disease, of so mild a character that fatal consequences never followed its development.

For many years prior to the publication of the discovery of vaccination, a disease had been known in Gloucestershire, portions of Ireland and on the continent, as existing among cattle and horses. This disease so nearly resembled the variola in man, as to cause many to believe them to be one and the same. In 1745 and 1770 it appeared with such great severity in England that in the latter year King George III; at the opening of Parliament, called upon both Houses to give it their serious consideration (*Aitken*).

It was noticed that, whenever a severe epidemic of small-pox occurred, the cattle also were affected with a similar form of disease. Dr. Anderson, in his work on Fever, mentions the fact that, while small-pox was raging with great violence at St. Jago, on the west coast of New Grenada, to which a town named David, in Chiriqui, was situated about sixty or seventy miles to leeward, a few days (four or five), before the disease appeared in this latter town, the small-pox had attacked and destroyed many monkeys in the forest. Dying and dead monkeys were seen on the ground covered with the perfect pustules of small-pox; and several sick monkeys were seen on the trees, moping or moving about in a sickly manner. In the course of a fortnight one half of the inhabitants of the town of David were stricken with small-pox.* Sheep, also, are at times affected with a disease similar to the one above referred to. This disease is known in France under the name *clavelée*. The inhabitants of this country introduced the system of inoculation or clavelization into their affected herds, by which procedure many animals were saved, the disease being modified, as in inoculation for small-pox in the human subject.

*Aitken, Vol. I., p. 399.

Diseases analagous to small-pox have been noticed running their course through pigs, dogs, and monkeys as has been previously mentioned.

It is difficult to prove that all these diseases are of common origin, yet it is very probable that they are the same modified by their occurrence in various animals. If they are not the same primarily, the fact certainly must be an anomalous one in the history of medicine, for in no other case does one disease prevent the occurrence of another in the same subject. An attack of measles never prevents scarlet fever, or small-pox render a person exempt from the ability to contract syphilis.

It was the immunity from small-pox, of those who had passed through the cow-pox disease, that led Jenner to study the subject of vaccination, and he was convinced that the disease first originated in the horse, and from thence was conveyed to the udders of cows by the hands of those who attended both horses and cows. Being developed upon the udders of the cows, the disease was subsequently conveyed to the hands of the milkers.

Dr. Jenner, to whom must be given the credit for making known to the profession and the world the prophylactic power of vaccination, published his first essay upon the subject in the spring of 1798, entitled "*An inquiry into the causes and effects of the Variola Vaccinæ, a disease discovered in some of the western counties of England, particularly Gloucestershire, and known by the name of cow-pox.*"

In the opening page of this essay, he says: "There is a disease to which the horse, from his state of domestication, is frequently subject. The farriers have termed it the *grease*. It is an inflammation and swelling in the heel, from which issues matter possessing properties of a very peculiar kind, which seems capable of generating a disease in the human body (after it has undergone the modification I shall presently speak of), which bears so strong a resemblance to the small-pox, that I think it highly probable it may be the source of that disease.

"In this dairy country, a great number of cows are kept, and the office of milking is performed indiscriminately by men and maid servants. One of the former having been appointed to apply dressings to the heels of a horse affected with the grease, and not paying due attention to cleanliness, incautiously bears his part in milking the cows, with some particles of the infectious matter adhering to his fingers. When this is the case, it commonly happens that a disease is communicated to the cows, and from the cows to the dairy maids, which

spreads through the farm until most of the cattle and domestics feel its unpleasant consequences. This disease has obtained the name of the *cow-pox*.

"Thus the disease makes its progress from the horse (as I conceive) to the nipple of the cow, and from the cow to the human subject."

Many writers since the time of Jenner have endeavored to prove that, although cow-pox and small-pox are analagous diseases, they are not identical. Dr. Gregory, while he admits that swine-pox and small-pox are alike, denies that cow-pox is the same disease. "In man," he says, "cow-pox never produces small-pox; nor does small-pox, however mild, approach to the character of cow-pox. It remains, therefore, a very questionable point whether these disorders can be essentially the same; in other words, whether cow-pox can be considered a permanent, as swine-pox is a temporary, modification of variola." He denies the power of implanting the vaccine disease upon the cow by miasmatic influence, and regards as "fabulous" the accounts, stating such had been done.

The first account given of a successful attempt to inoculate the cow with small-pox taken from a human pustule was published in Berlin, in 1801. Inoculation was afterward successfully performed by various persons, and in 1830, Dr. Sonderland communicated the disease to cows by covering them with blankets in which small-pox patients had lain. In 1836 a Russian physician, inoculated the udders of cows with human virus. From the vesicles so formed vaccination was performed, and retained its specificity throughout seventy-five transmissions through the human system.

Dr. Aitken, admits that "there are good grounds for the belief that the impalpable emanations, the specific effluvia, from cases of small-pox in human beings, have been sufficient to communicate the variolous disease to cows." He quotes the following fact as given by Mr. Ceely, in the *Transactions of the Provincial Medical and Surgical Association* :—

"At the village of Oakley, about sixteen miles from the town of Aylesbury, small-pox had been epidemic from June to October, 1840. Two cottages, in which three persons resided during their illness, were situated, one on each side of two sides of a long narrow meadow, comprising scarcely two acres of pastureland. One of these three patients, though thickly covered with pustules of small-pox, was not confined to her bed after the full development of the eruption, but frequently crossed the meadow to visit the other patients, a woman and a

child, the former of whom was in great danger, from the confluent malignant form of the disease, and died. According to custom she was buried the same evening; but the intercourse between the cottages across the meadow was still continued. On the day following death, the wearing apparel of the deceased, the bed clothes and bedding of both patients, were exposed for purification on the hedges bounding the meadow; the chaff of the child's bed was strewed about on the grass over the meadow, where it was exposed and turned every night, and for several hours during the day. This purification of the clothes continued for eleven days. At that time eight milch cows and two young heifers (sturks), were turned into this meadow to graze. They entered it every morning for this purpose, and were driven from it every afternoon. Whenever the cows quitted the meadow, the infected articles were again exposed on the hedges, and the flock of the bed was spread out on the grass, and repeatedly turned. These things remained until the morning, when the cows were readmitted, and the contaminated articles were supposed to be withdrawn. It appears, however, that the removal of the infected articles was not always accomplished so punctually as had been enjoined, so that, on one occasion, at least, the cows were seen in the midst of them, and licking up the flock of the bed which lay on the grass. These cows were in perfect health when first put out to graze in this meadow; but in twelve or fourteen days *five* (out of the eight) milch cows appeared to have heat and tenderness of the teats. The teats became swollen, and small hard papules could be distinctly felt upon them, as if imbedded in the skin. These papules daily increased in magnitude and tenderness; and, in a week or ten days, they rose into *blisters* (vesicles), passing into brown or blackish scabs. When the teats were in this condition, and very tender, constitutional symptoms of ill health became developed. Sudden *sinking* or loss of milk, drivelling of saliva from the mouth, frequent inflation and retraction of the cheeks, staring of the coat, 'tucking up of the limbs,' 'sticking up of the back,' and rapid loss of flesh, were the appearances which even the peasants themselves were able to appreciate. By the middle of the third week the pustules were matured, and the crusts and loose cuticle began to be detached. The simultaneous occurrence of the disease on all the animals increases the probability of the operation of one common cause. The whole of the cows were certainly affected within less than three days of each other; and another circumstance requires particular notice, namely, the occurrence of the disease in a young heifer

(sturk), to which of course the disease could not have been communicated by those casualties which commonly propagate the vaccine variola among milch cows. The cause which originated the disease among them at the same time affected the young heifer which hitherto had not been considered liable to the vaccine disease, simply because no one had seen the animal affected by it. Now it is known, both in this country and in Germany, to be liable to the disease."

In the year 1799, Jenner published, "Further Observations on the Variolæ Vaccinæ," confirming the views set forth in his original essay, and in the following modest manner asking that they be received by the profession: "Ere I proceed let me be permitted to observe, that truth, in this and every physiological inquiry that has occupied my attention, has ever been the object of my pursuit; and should it appear in the present instance that I have been led into error, fond as I may appear of the offspring of my labors, I had rather see it perish at once, than exist and do a public injury."

In this essay, he presents the same views as regards the common origin of small-pox, and the similar diseases of animals, although he does not endeavor to fully settle the question. He says: "whether the cow-pox is a spontaneous disease in the cow, or is to be attributed to matter conveyed to the animal, as I have conceived, from the horse, is a question, which though I shall not attempt now to fully discuss, yet I shall digress so far as to adduce some further observations, and to give my reasons more at large for taking up an opinion that to some has appeared fanciful. The aggregate of these observations, though not amounting to positive proof, forms presumptive evidence of so forcible a kind, that I imagine it might on any other person have made the same impression it did on me, without fixing the imputation of credulity. First, I conceived this was its source, from observing that where the cow-pox had appeared among the dairies here (unless it could be traced to the introduction of an infected cow or servant), it had been preceded at the farm by a horse diseased in the manner already described, which horse had been attended by some of the milkers.

"Secondly, from its being a popular opinion throughout this great dairy country, and from its being insisted on by those who here attended sick cattle.

"Thirdly, from the total absence of the disease in Ireland and Scotland, where the men servants are not employed in the dairies.

"Fourthly, from having observed that morbid matter generated by the horse frequently communicates, in a casual way,

a disease to the human subject so like the cow-pox, that in many cases it would be difficult to make the distinction between one and the other.

"Fifthly, from being induced to suppose from experiments, that some of those who had been thus affected from the horse resisted the small-pox.

"Sixthly, from the progress and general appearance of the pustule on the arm of the boy,* whom I inoculated with matter taken from the hand of a man infected by a horse; and from the similarity to the cow-pox of the general constitutional symptoms which followed."

In a third essay published in 1800, Jenner still presents the idea that the two diseases were modification of the same: He says: "In my first publication on this subject, I expressed an opinion that the small-pox and the cow-pox were the same diseases under different modifications. In this opinion Dr. Woodville,† has concurred. The axiom of the immortal Hunter, that two diseased actions can not take place at the same time in one and the same part, will not be injured by the admission of this theory."

It is now three quarters of a century since the views given in the preceding quotations were published to the world, and to-day medical science has not succeeded in refuting them, or of adding any new demonstration to prove them correct. The very latest authority sums up the question in very much the same line of thought: "Respecting the origin of *Variola Vacciniae*, which is by no means a frequent disease, we have as yet no very certain knowledge. A 'spontaneous' development is accepted by many, upon no very strong evidence however. The inoculation of human small-pox lymph upon cows produces *variola vaccinia*, the same as after inoculation from the horse-pox, and if a susceptible person is vaccinated from a *variola vaccinia* acquired in this way, merely local pustules will be produced without any general eruption following. However strongly these circumstances speak in favor of the identity of human and cow, or animal-pox, for which many writers very zealously contend, they do not absolutely prove it: and hence, for the present, we can only admit the probability of the supposition that *variola vaccinia* is small-pox, so modified by the nature of the soil that it retains its tendency to strict localization, even when re-engrafted upon the human species."‡

* A case reported in first essay.

† Then Physician to the London Small-Pox Hospital.

‡ Curschmann.

As with all new theories, so it was with Jenner's discovery. Many simply ignored his publications, others made vigorous attacks upon him, while not a few came forward and apparently gave him their support, always however evincing that caution with which the medical profession receives any new and startling discovery. Even the great surgeon John Hunter failed to see anything in the new procedure that would warrant time for further investigation. Dr. Jenner, however, with the spirit of the enthusiast, studied the matter most persistently, as Aitken says, "with almost a holy reliance in the truth of the great discovery; and in the face of the most foolish opposition, he modestly continued to prosecute his inquiry, encouraged, as he said, by the hope of becoming beneficial to mankind."

Jenner himself felt most keenly the opposition shown him by the medical profession; for he says, in closing his third treatise on the subject, "The scepticism that appeared even among the most enlightened of medical men when my sentiments on the important subject of the cow-pox were first promulgated, was highly laudable. To have admitted the truth of a doctrine, at once so novel and so unlike anything that ever had appeared in the *Annals of Medicine*, without the test of the most rigid scrutiny, would have bordered upon temerity; but now, when that scrutiny has taken place, not only among ourselves, but in the first professional circles in Europe, and when it had been uniformly found in such abundant instances that the human frame, when once it has felt the influence of the genuine cow-pox, in the way that has been described, is never afterward at any period of its existence assailable by the small-pox, may I not with perfect confidence congratulate my country and society at large on their beholding, in the mild form of the cow-pox, an antidote that is capable of extirpating from the earth a disease that has ever been considered as the severest scourge of the human race."

The following year, in his fourth essay, he says, "that it is now too manifest to admit of controversy, that the annihilation of small-pox, the most dreadful scourge of the human species, must be the final result of this practice."

Notwithstanding all opposition, it was wonderful how rapidly the new operation gained favor with the public. In 1802 the House of Commons reported upon the utility of vaccination, and upon Dr. Jenner's claims to the discovery; and upon the 2d of June in that year, Parliament voted him £10,000. In 1807, this matter was reconsidered, and an additional sum of £20,000 was awarded him. In 1808, the National Vaccine Establishment was formed, which continued many years to

superintend, with much success, the practice of vaccination in this country (England). (*Dr. Gregory*).

The practice of the operation was introduced into America in 1799, by Benjamin Waterhouse, of Boston, he being the first Professor of Medicine in Harvard University. At first much opposition was shown by the public, and it was some time before the prejudice was so far removed as to allow of its becoming at all general.

Space would forbid a presentation of the views of prominent writers, who have both opposed and favored the operation since the discovery was announced. As has been intimated in the opening pages of this article, there still exists a prejudice in the minds of some practitioners as to the advisability of the procedure, but it is to be hoped that this number is small and that very soon there can be none found who oppose its general adoption. Dr. Aitken thus forcibly compares the ready acceptance of former times with doubtful reception of later years: "Then it would seem to have been almost unanimous; and now, one would think, at first sight, that it were almost an insult to human understanding, to be obliged to collect statistics to *prove* that vaccination confers a large exemption from attacks of small-pox, and almost absolute security against death from that disease. But so it is, and independently of the information which such statistical inquiry is calculated to convey to those who advise our lawgivers and public administrators, the inquiry is eminently useful in relation to everything which bears on the nature of vaccine and variolous disease. The general ignorance of the community, and especially the prejudices of the lower classes, and not a few (even medical men) who ought to know better as to the value, the aim, and the object of vaccination, is lamentably great, and has still to be overcome."

It is pleasant to observe that the discoverer of this wonderful boon to mankind, received some recognition for the great discovery he had been able, by years of constant application, and unrequited toil, to so completely elaborate, in the three or four essays which followed each other in rapid succession. It will be found by a careful perusal that the many questions connected with the processes of vaccination and revaccination were as ably discussed in these short essays, as has been done in the elaborate articles which have followed by more moden writers. The recognition of the greatness of the discovery by the Houses of Parliament, in granting the large sum of £30,000, is something exceptional in the history of medical investigation and discovery. As satisfactory as this

recognition on the part of his Government must have been to Jenner, he received, no doubt, much greater pleasure in being able to see that gradually all opposition was being overcome, and his discovery was being encouraged by the medical profession, throughout the civilized world. In one of his essays, he says: "Since my former publications on the vaccine inoculation, I have had the satisfaction of seeing it extend very widely. Not only in this country is the subject pursued with ardour, but from my correspondence with many respectable medical gentlemen on the continent (among whom are *Dr. De Cano*, of Vienna, and *Dr. Ballborn*, of Hanover), I find it is as warmly adopted abroad, where it has afforded the greatest satisfaction. I have the pleasure, too, of seeing that the feeble efforts of a few individuals to depreciate the new practice, are sinking fast into contempt beneath the immense mass of evidence which has risen up in support of it."

It is proposed, in the following pages of this article, to as briefly as possible consider the various questions which arise in a careful study of the whole subject of the operation of vaccination. In order that the matter may be systematically presented, it is considered advisable to arrange the whole subject, and study it under the four following queries:

First. Does vaccination protect the system from contagion of small-pox?

Second. Why does the protective power of vaccination become so impaired as to render revaccination advisable?

Third. What causes have prejudiced the public against the operation of vaccination?

Fourth. What measures should be instituted to enforce a due appreciation of the benefits of vaccination?

FIRST—DOES VACCINATION PROTECT THE SYSTEM FROM THE CONTAGION OF SMALL-POX?

In private practice the difficulty of collecting statistics, as regards the number of those who have suffered from small-pox, after vaccination is so great, that no reliable information can be gained from consulting such figures, it is evident that in some cases varioloid has occurred, where the patient presents good cicatrices on examination. The occurrence of modified small-pox in those who have been vaccinated has caused many, who have not inquired carefully into the subject, to doubt whether the operation is really one of prophylaxis. A case of varioloid occurring in a community, will spread small-pox as

readily among the unvaccinated as will a case of the unmodified disease. This fact being known, the ignorant are led to deery vaccination and to resist the attempts of the physician to institute the procedure.

It is evident that much knowledge of the protection guaranteed by vaccination may be gained by consulting the mortality tables of any country. By comparing these tables it will be found that deaths from small-pox have decreased, in a wonderful degree, since laws compelling attention to the subject of vaccination, have been enacted. The records of the Army and Navy also illustrate the beneficial results accruing from compulsory measures.

Dr. Seaton, in reporting the results of vaccination in Scotland and Ireland, says, that in the twelve years from 1853 to 1864 there was an annual death rate from small-pox in the former country of 1,054, there being no vaccination act prior to 1863. In the years 1865, '66, '67, '68 it was, respectively, 175, 200, 124, and 25. In Ireland from 1830 to 1840, the annual average mortality was 5,800; from 1840 to 1850 it was 3,827, and from 1850 to 1860 it was 1,272. Vaccination became compulsory in 1863 and in the years 1864, '65, '66, '67, '68, they were, respectively, 854, 347, 187, 20, and 19. In the first three months of 1869 there were only three deaths, and in the next quarter of the year, none. [*Edinburgh Medical Journal*, November, 1870.]

The report of the Epidemiological Society of London is given quite fully by Prof. Aitken, and, although quite lengthy, its introduction will certainly not be out of place here, as it shows very conclusively the beneficial influence of even an imperfect enforcements of vaccination enactments :

“ I. To prove the influence of vaccination in England, it is shown that out of every 1,000 deaths in the half century from 1750 to 1800, there were 96 deaths from small-pox; and out of every 1000 deaths in the half century from 1800 to 1850, there were only 35 deaths from small-pox.

“ II. To prove the influence of vaccination on the Continent, it shows that in various German States sufficient evidence can be obtained to show that one out of every 1,000 deaths *before vaccination was used*, 66.5 were deaths from small-pox; but that out of every 1,000 deaths *after vaccination* came into use, the deaths from small-pox were only 7.26.

“ III. To prove that in countries where vaccination is most perfectly carried out small-pox is least mortal, it is shown that

(a) In this country where vaccination has been voluntary, and frequently neglected, the deaths from all causes being 1,000, the deaths from small-pox were as follows :

London,	16.	Edinburgh,	19.4
Birmingham,	16.6	Glasgow,*	36.
Leeds,	17.5	Galway,*	35.
Eng. & Wales	21.9	Limerick,*	41.
Perth,	25.	Dublin,	25.6
Paisley,	18.	Connaught,*	60.
All Ireland, 49.			

(b) In other countries, where vaccination has been more or less compulsory, the deaths from all causes being 1,000, the deaths from small-pox were as follows :

Westphalia,	6.	Bohemia,	2.
Saxony,	8.33	Lombardy,	2.
Rhenish Prov.,	3.7	Venice,	2.2
Pomerania,	5.25	Sweden,	2.7
Low. Austria,	6.	Bavaria,	4.

As early as the year 1803, a law was enacted in Sweden, by which vaccination was made compulsory. The King, out of his own purse, appropriated money "*to be divided into premiums, which were to be distributed among such medical men as could exhibit the greatest number of vaccinated persons.*" The result of this active endeavor to popularize the procedure, is told in the report written from Stockholm in 1814, by *Dr. Fr. Hedin, First Physician to the King*. He says : "It may, therefore, be asserted that the small-pox, that equally disgusting and destructive pestilence, which for many ages continued annually to send out of the world an immense number of young children, is now, through the influence of *Dr. Jenners' inestimable discovery*, so perfectly extirpated in Sweden, that it never can become epidemic, even at any time, notwithstanding all the orders and all the vigilance employed for its seclusion, the infection should make its appearance. Such, in the last twelve years, has been the effect of the King's wise and humane attention, of the unanimity and disinterestedness of the medical profession, of the patriotic zeal of the clergy, of the good examples so promptly exhibited by the upper classes, and of the progress of information and civilization in the lower."

This wonderful protective power of vaccination is conclusively shown in the Army and Navy reports of various countries. Of course, where the medical regulations are as strictly enforced as they are under military discipline, it would be expected that

*It has been clearly shown by good authority that in towns marked with the asterisks, the great mortality was due to neglect in vaccination.

the full benefits of any procedure would be observed. Dr. Balfour has collected statistics from the records of the British Army and Navy. It is shown that in one branch of the service, with an aggregate strength of 44,611 during the twenty years from 1817 to 1836 inclusive, there were only THREE deaths from small-pox, in a total mortality of 627. During the same period among the troops of Gibraltar, the aggregate strength being 44,611, and a total mortality of 1,291, there occurred only ONE death from small-pox. In the same period, the aggregate strength of the troops of the West India Islands being 86,661, the total mortality from all causes was 6,803, and there was not a single death from small-pox in this whole number. At the same time, among the black troops on the same islands, with a strength of 40,934, and a mortality of 1,645, there was not a death from small-pox. This exemption is the more remarkable as there were several epidemics of the disease during this period, and it is well known that the colored race is peculiarly predisposed to this particular contagion. At Bermuda, Nova Scotia, New Brunswick, Cape of Good Hope, and the Mauritius, there were no deaths from small-pox for twenty years. And in Western Africa, where the unprotected population was dying by hundreds, there were no deaths from the disease among the troops stationed in that region of country. The most remarkable exemption is found in the reports from Malta. There was an aggregate strength of the British troops of 40,826 during the period from 1818 to 1838 inclusive; with a total mortality of 665, only two deaths from small-pox occurred. During the years 1830 and 1838, extensive epidemics of small-pox swept over the island, in which 1,169 persons were destroyed. The mortality was 1 in 4.7 among those who were *not vaccinated*; 1 in 23.4 among those who were *supposed to be vaccinated*; and among those who were attacked the second time with small-pox, the rate of deaths was 1 to 10.8. In the year 1830, the native population of Malta was 100,839 persons. It is shown that 1 in every 12.1 was attacked with the disease, and that 1 in every 85 persons died. Among the troops, including the wives and children, there was only 1 in every 188 attacked, and of these only 1 in 682 died from the disease.

(Aitkin).

Mr. Marson, of the Small-Pox Hospital, London, reports, "That in 5,000 cases of small-pox, under observation from 1836 to 1855, it appears that there were thirty-five per cent. of deaths among those that were unvaccinated." The same writer says that in the town of Pinchbeck, Lincolnshire, with a population of 3,000 inhabitants, during thirty years there

was only one death from small-pox, and that was an unvaccinated person. Dr. Seaton, in his evidence before the select committee, stated that the mortality among children under five years of age had been reduced, by vaccination, in Scotland, from 70 or 80 per cent. to 55. In Greenock the mortality in the same class had been reduced to 36 per cent., and in Glasgow to 28 per cent.—(*Edinburg Medical Journal for November, 1871.*)

During the years 1871 and 1872 the city of Philadelphia was visited with an epidemic of small-pox, noted for the great mortality with which it was attended. Dr. Wm. M. Welch, of that city, has furnished a most valuable report of the epidemic, comprising statistics of 2,377 cases of variolous disease, which occurred under his observation. In this report he classifies all cases occurring in unvaccinated persons, as well as those cases where, even after vaccination, the eruption passes the sixth or seventh day without reaching maturity, as true variola. All other cases he calls varioloid.

The following tables show conclusively the protective influence of vaccination, and are taken from the report above referred to:

“Table showing the total number of cases of variola and varioloid admitted to the hospital during the epidemic; also, the number of deaths and death rate of each:”

DISEASE.	ADMITTED.	DIED.	PER CENT. OF DEATHS.
Variola	1,301	728	65.95
Varioloid	1,076	15	1.39
Totals	2,377	743	31.25

“Table showing the diminished mortality from small-pox after vaccination:

	ADMITTED.	DIED.	PER CENT. OF DEATHS.
Not vaccinated	697	449	64.41
Post vac. cases	1,629	276	16.94
Unclassified	51	18	
Totals	2,377	743	31.25

The death-rate of this report is certainly very high. As a rule, 33 per cent. is considered the average mortality from the disease during an epidemic of small-pox. As seen by the

tables above, a much greater average is shown. This higher rate of mortality is noticeable in both post vaccinal and unvaccinated cases, but the difference between the two classes is great, and when it is remembered that persons who presented very poor cicatrices are considered among the vaccinated, the difference is still more marked. The author assigns as a reason for this great mortality, "First, the virulence of the epidemic; second, that a large proportion of the patients were from among the lower order of society, with constitutions exhausted, and perverted by intemperance—and many of these were not received until all hope of recovery had passed."

It is shown conclusively, by facts deduced from the testimony given in the foregoing pages, that, since the introduction of the operation of vaccination, the rate of mortality has certainly been reduced in those portions of the world where attention has been given to the enforcement of the operation; and the tables of Dr. Welch also show the influence upon small-pox itself by proper attention to the procedure. In those cases which occur after vaccination, known as cases of varioloid, the death-rate is insignificant, and the mildness of the attack is well known by all. Mr. Simon has calculated that the death-rate from small-pox among the vaccinated varies from an inappreciable small mortality to $12\frac{1}{2}$ per cent.; that among those who are not protected by vaccination, the death-rate ranges from $14\frac{1}{2}$ to $53\frac{4}{5}$ per cent. (*Aitken*). According to Mr. Marson, the average mortality from small-pox amongst the vaccinated is 5.24 per cent.; but if the operation has been perfectly performed, the mortality is reduced to less than *half of one per cent.*

According to Drs. Gregory and Heim, the ratio of mortality after vaccination is about the same in England and Germany, namely, 7 per cent. In France, according to the report of M. Villeneuve, it appears to be much smaller. Of 365 cases of small-pox, occurring in persons who have been successfully vaccinated at some previous time, only eight proved fatal, giving a proportion of about one in forty-five or forty-six. More recently, M. Gauthier de Claubry infers that varioloid destroys one in one hundred, while the mortality from small-pox is one in 8.5.—(*British and Foreign Medical Review*, January, 1839.)

This line of investigation might be pursued much further if considered necessary, but the testimony given in the preceding pages is certainly sufficient to clearly demonstrate to any one that, as a means of preventing the development of small-pox, vaccination is all that could be desired. Jenner's idea has not

been fully realized. In his petition to Parliament, in 1802, he stated that he had "discovered a disease attended with the singularly beneficial effect of rendering, *through life*, the person inoculated with it perfectly secure from the infections of small-pox." The question, which may arise in discussing the reasons why such a perfect exemption has not yet been obtained, will be considered in the pages which are to follow.

TO BE CONTINUED.

Art. 2.—The Therapeutic Value of Digitalis.

By A. PATTON, M. D., Vincennes, Ind.

Read before the Tri-State Medical Association, at Vincennes Indiana,
October 27, 1875.

I have selected an old, but somewhat obscure and difficult subject—one that has perplexed many of our ablest writers and most distinguished observers in practical medicine. There is probably no article within the broad range of our *materia medica* which has given rise to so much discussion, and afforded so wide a field for speculation as *digitalis*. Nor would I have thought of presenting a question before this meeting of experienced and able physicians which is surrounded with so much doubt and uncertainty, were it not for the two important facts that I have had a very extended experience with this medicine in the treatment of some forms of disease, and that eminent medical writers have lately brought it forward as a remedy of great value in typhoid and typhus fevers.

When I state that within the last twenty months I have prescribed fifteen pounds—nearly two gallons of the tincture of *digitalis*, and that in other periods the quantity used was equally as great, you may form an idea of my opportunities for observing the effect of *digitalis*. When I began the free use of the medicine, which was about ten years ago, I was not fully determined as to whether it was a sedative to the heart's action, or a special tonic and stimulant to that important organ. Nor was I free from anxiety as to its cumulative effect. But, as not a single instance of this kind has come under my observation, nor a case of well-marked digitalic collapse, I am forced to the conclusion that these effects are more fancied than real.

I practiced medicine twenty-five years before I became fully convinced of the therapeutic value of this remarkable agent. From the teachings of the books, it was difficult to form an accurate estimate of either its mode of action or special effect, so great was the contrariety of opinions expressed by equally able writers.

Van Helmont, who was the first to prescribe the medicine, thought it a specific in scrofula, as he observed the most obstinate scrofulous ulcers to heal rapidly under its internal and external use.

Dr. Withering, who wrote the first extended account of it, was enthusiastic in its praise as a remedy in hydrothorax and some other forms of dropsy.

Dr. Beddoes had seen radical cures effected in phthisis with it, and Dr. Saunders, who made two thousand experiments with it, had often seen indolent ulcers get well under its internal use alone. Erasmus Darwin, in his *Zoonomia*, praises the medicine in dropsy and phthisis. Dr. Rush refers to a case of dropsy cured by it when all other medicines had failed. Dr. McLean, in his work on hydrothorax, published in 1814, reports ninety-four cases of that disease treated with digitalis with remarkable success. J. Mason Good and Dr. Thomas, in their well-written and learned works on practical medicine, recommend digitalis in many forms of chronic and obstinate disease, with great confidence. A large number of old writers, as well as new, might be referred to, who have presented indisputable evidence of the great value and certainty of digitalis as a therapeutic agent—such as Laennec, Williams, Louis, Tanner, Flint, and Neimeyer, but as my main object is to bring the fruits of my own experience and observation to the attention of the profession, I must briefly present such views and deductions as in my judgment the facts I am in possession of will justify.

The first case treated with digitalis as the controlling remedy, was a Miss Newman, of Sumner, Illinois, aged 19, with well-marked symptoms and the usual physical signs of mitral valvular disease. Hydrothorax and œdema of the lower extremities, distressing dyspnœa, pale, cold skin, quick, irritable pulse, irregular action of the heart, with abnormal sound, constituted the principal features of the case. There had been no scarlatina or chronic intermittent fever. Under the digitalis treatment she entirely recovered; married, and has children—health still good. A few years later her sister was treated for a similar train of morbid phenomena, in the same way, with like result. She is now entirely well. Since that time I have

used the medicine with considerable freedom and confidence in various cardiac affections, and am able to state with positive certainty that it exercises not only an ameliorating effect above all other remedies, but is directly curative in such cases. Not a patient that labored under valvular disease of the heart, or any other heart affection, that was treated with *Digitalis*, has died, with the single exception of a case of *angina-pectoris*, and in that case very few doses of the medicine were taken, as its effect was not by any means encouraging.

I have also treated Basdow's disease with it, and have seen the enlarged thyroid gland and prominence of eye balls rapidly disappear under its use. A case of cardiac trouble, in which the *arcus senilis* of the cornea was a striking feature, was rapidly improved by *digitalis*, and the fatty deposit of the cornea has almost disappeared, under the gentle stimulation of the medicine upon the ganglionic system.

I am treating a patient at this time who has taken, in the last four years, an average of fifteen drops of the medicine three times a day, with only occasional intermissions of a few weeks at a time. This case is referred to as an instance of the safety and advantage of continuing *digitalis* for a long period of time in certain forms of disease. When I first placed her upon the *digitalis* treatment, she could scarcely tolerate the recumbent posture, so great was the dyspnoea. There was so much cardiac irritability that the slightest cause of excitement brought on most alarming paroxysms of palpitation and depression of the circulation, which lasted for several hours. Scarcely a day passed without the recurrence of one or more of these seizures. She was pale, and decidedly anæmic; pulse weak and quick, extremities cold nearly all the time. There was œdema of the lower extremities, and the physical signs clearly indicated mitral valvular disease, which, together with the abnormal condition of the muscular tissues of the heart, was sufficient to produce the various phenomena I have recited. *Digitalis* has been the main remedy relied on, and the improvement has been uniform and steady, until now the condition of the patient is entirely satisfactory, though the medicine is still given at irregular intervals, as a means of preventing a return of the distressing symptoms. The heart's action is now regular, and the sounds almost normal. If this is not an instance of radical cure of organic disease of the heart, it is at least one of suspension.

An interesting case of hypertrophy has been under treatment since the tenth of last May, and, although I was admonished by Flint, Carrigon, Munk, Henderson, Fothergill, and

others, that digitalis was not a safe remedy in hypertrophy, I determined to give it a faithful trial in this case, believing that instead of its being contraindicated, it constituted the very best means at my command for at least affording temporary relief in this formidable disease, that would prove fatal unless its onward march should be interrupted in some way. Prof. Flint says: "Never give digitalis in hypertrophy, because the heart's action is already far too vigorous, and the medicine will only increase it." But he evidently means by this that it is in those cases where hypertrophy of the walls is far in advance of the dilatation, and where there is plethora and tendency to cerebral apoplexy, and not in cases depending upon lesion of the mitral valve, in which there is considerable dilatation, with debility, anæmia, dyspnœa, pale countenance, and small pulse, as was the condition of the patient I am referring to, as he himself says that the abnormal growth of the walls of the heart is conservative in such cases, and that comfort and safety of the patient depend upon it, and therefore measures should be used to maintain the muscular tone and vigor of the heart. What medicine is better calculated to do this than a pure cardiac tonic, as is digitalis, according to Flint himself? Believing that a greatly overworked heart, that was struggling to compensate the dangerous defects in the circulation from valvular lesions, needed, above all things, a remedy that would aid ventricular contraction without producing general debility, and believing that digitalis possessed this power above all other medicines, I placed the young lady upon fifteen-drop doses of it three times a day, and also gave small doses of nitric acid, as a general tonic, which was continued for only a short time. Under this treatment there has been a gradual, and, to me, very encouraging improvement. The general health is better, the difficulty of breathing not so harrassing, and the action of the heart more regular and steady, the pulse fuller and firmer, she sleeps better and coughs less, and if intercurrent lung trouble can be prevented, she may have a longer and happier life than many whose prospects are far more promising.

But there are some forms of hypertrophy in which it would not be safe to use digitalis, and there are other abnormal conditions of the heart which certainly forbid its use, but I claim that there are many diseases of that important organ to which I have not referred, and can not at present for want of time, in which the medicine would fulfill an alterative indication. Might we not reasonably suppose that a medicine possessing the power to cause indolent ulcers to heal under its in-

ternal use, and the enlarged thyroid gland to return to its natural size, and the morbid deposits in the orbit beneath the eye-ball to be absorbed, and the fatty degeneration of the cornea in *arcus senilis* to disappear, would exert a powerfully alterative and directly curative effect in all chronic lesions of the heart and its valves? A medicine, the specific action of which is directed to the heart, through either the great sympathetic or vagus nerve, or both, must be endowed with curative powers in organic diseases of that organ, which promises to be far more than a temporary remedy; and the cases I have treated, though not by any means affording conclusive proof of its permanently curative power, at least encourages us to hope that in *digitalis* we possess a far more certain and energetic medicine than has hitherto been supposed.

We all understand that partial degenerations are caused by a disordered state of the circulation of the part, such as congestion or inflammation in a chronic form. To afford relief in such conditions, we must in some way act upon the circulation of the part affected. If it is a fibroid growth in the uterus, late discoveries have demonstrated that it may be removed by a special agent, such as *ergot*, acting upon the blood vessels of the part, and in structural disease of the heart or large blood vessels, we may expect the most favorable results from an agent like *digitalis*, that will so modify the circulation as to change nutrition, and develop healthy action; and I am confident that in my hands the agent has eminently sustained in practice that which is so pointedly suggested by scientific theory.

The medicine may be prescribed with advantage in softening, atrophy, fatty degenerations, warty excrescences upon the valves, as well as ulceration and thickening depending on chronic endo-carditis. I should not hesitate to give it in all obstructions of the aorta, also in obstructions of the pulmonary artery, including osseous deposits, with the hope of inducing favorable changes in these structural lesions, by stimulating the ganglionic system, which presides over the function of nutrition. I am now using *digitalis* with good results in cases of phthisis where the pulmonary engorgement and dyspnoea depend upon heart complications, as they often do.

In addition to this we may expect benefit from *digitalis* in giving tone and strength to the heart, rendering its action more steady and firm, thereby exerting greater pressure upon the arterial system, which would necessarily produce a favorable change in general nutrition, and indirectly upon the lungs, which might promote absorption of tuberculous deposits. At

any rate the remedy is worthy of a trial, though not, of course, to the exclusion of other medicines. In all forms of acute inflammation, digitalis would, in my opinion, prove a useless, and probably injurious medicine, at least in the first stage, though a condition might, and sometimes does arise, in the advanced stage of pneumonia, where there is a failure of the heart power, that would demand the use of digitalis.

In typhoid fever there is high authority for the employment of digitalis. Dr. Hankel, a distinguished German writer, reports results of observations made in 80 cases of typhoid fever: "Invariably there was a diminution of the fever and lowering of the pulse. It lessens delirium, and the pulse, when small, becomes fuller. It may be given to anæmic and depressed patients." The attack is prolonged, so that the remedy is only indicated in cases of great danger. Dr. H. M. Jones, in the *Dublin Journal of Medicine*, 1874, says he has almost abandoned the use of alcohol in typhoid and typhus fevers, and substituted in its place digitalis, and his statistics demonstrate a greatly reduced mortality. He has treated a very large number of cases with it, and claims that it steadies the pulse, rendering it less compressible. He has observed its effects closely in two hundred cases, and has no doubt of its antipyretic effect. He regards it to be a wonderful cardiac tonic and stimulant, and not sedative. I have used the medicine with great caution in low forms of fever, and in a sufficient number of cases to become fully convinced of its great value in those severe forms of fever in which there is a small, quick pulse, delirium, and failing heart power, as indicated by the diminished intensity or entire suppression of the first sound of the heart, together with its alteration in duration and quality. In these cases I have invariably found benefit from it, and greatly prefer it to alcoholic stimulants, or any other agent. For the heart softening, and for continued debility, which often occur in typhoid and typhus fevers, and is a fruitful source of fatality according to Louis and others, we want a remedy that will directly and certainly produce firm and decided contraction of the muscular tissues of the heart. That digitalis will accomplish this, we have a right to affirm from well-accredited facts. But to determine that there is a failure of cardiac power in any case, we must rely upon the signs revealed in auscultation, and not take the pulse as a criterion. The heart's apex impulse will be abnormally weak or suppressed, the first sound will be altered—that is, it will be short and valvular, being somewhat like the sound of the foetal heart. When these physical signs occur in the progress of a fever, there is a pos-

itive indication for digitalis, and if you will carefully observe its effect, you will soon have the satisfaction of finding the cardiac power greatly strengthened, and the sounds and impulse becoming more natural. With this change in the heart's action there will be a decided improvement in the general symptoms. Fatty degeneration of the heart sometimes occurs in the progress of these fevers, the signs of which being very similar to softening, and the treatment with digitalis as certainly indicated.

To use digitalis with advantage, or even with safety, as a therapeutic agent, will necessitate a thorough knowledge of special differential diagnosis. It is not enough to determine that our patient has dropsy, asthma, typhoid fever, phthisis, or even cardiac disease, to justify the prescription of a single dose of digitalis, for there are large numbers of cases of each of these diseases that would be injured by the medicine, while there is a limited number in each class that might be cured or benefited by it, and in such cases it is the only agent known to the profession that will meet the indication and save the life of the patient. But for this high consideration the difficult and tedious study of a medicine so complex in its action, would scarcely be profitable. When, however, we come to accept it as true that digitalis is our only special heart tonic, the only medicine that can directly invigorate, increase the force and contractile power of that organ, without producing local determinations, as do all our diffusible and general stimulants, then will our thinking and earnest physicians devote themselves to its careful study.

For the purpose of determining its effects upon the normal heart, I gave digitalis to my son, who was in good health, for several days. The dose began with was five drops every two hours, gradually increasing until it reached fourteen drops. The pulse and temperature were carefully noted, as well as the cardiac changes. The pulse became fuller and stronger, with slightly increased force. The frequency was not increased or diminished. But the most notable effect of the medicine was upon the heart's impulse, which was so much increased that he complained of an uncomfortable throbbing in the cardiac region. The temperature was not sensibly affected, nor did the thermometer indicate any changes. This experiment clearly establishes the claim of digitalis being a cardiac stimulant, and not a sedative, as the medicine was continued three days without producing the slightest depression, but on the contrary the ventricular action was sensibly increased. Then in prescribing the medicine, we must dismiss from our mind

the idea of its being a sedative, but constantly have in view its stimulant and tonic power upon the heart. With this fact as a starting point, aided by a full understanding of the precise abnormal condition in which a cardiac tonic and stimulant is needed, and the effects that would necessarily follow an increased action of the heart, we need not err in the use of this potent drug. It will be remembered that all writers, from Withering down to Flint and Neimeyer, are positive in the statement that the medicine acts most favorably in those cases in which there is a weak pulse, pale countenance, irregular action of the heart, and other evidences of debility or weak cardiac power, and is not suitable where there is a strong, full pulse, florid face, and evidence of plethora, and yet, with these indisputable evidences before them, many of the old writers, and some of the new, claim that it is a heart sedative instead of tonic. The only explanation I am prepared to offer for this discrepancy, is that in cases of great irritability and debility of the heart, causing a quick, small pulse, the medicine, by giving tone and energy to the contracile power of the heart, enables it to perform as much work by one ventricular contraction, as will two when it is struggling against debility and other obstructions to the circulation. This, of course, would rapidly decrease the frequency of the heart's beats, and lead to the erroneous conclusion that the medicine was sedative in its action, when it was really tonic and curative. Another action of digitalis calculated to mislead the superficial observer is its power to increase and stimulate the action of the arterial and capillary vessels, which has the effect to relieve the heart of much of its labor, and thus reducing the number of its beats to a normal standard.

Digitalis calms the disturbed action of the heart, not by an hyposthenic action, as has been supposed, but by its strengthening and restorative powers. To understand how this agent influences the heart's action, as well as nutrition, secretion, uterine contraction, and hemorrhage, we must study its relations to the sympathetic nerve, and conclude that it acts in some special way upon its extreme filaments. This theory fully accounts for the favorable results obtained by digitalis in some forms of fever, cerebral affections, dysmenorrhea, congestion, dropsy, tuberculosis, and all diseases of the circulation due to lesions of the heart.

In a private letter, that distinguished observer of diseases of the nervous system, Dr. W. A. Hammond, of New York, says that he uses digitalis a great deal, and for long periods of time, and regards it as our only special cardiac tonic and

stimulant. He does not believe in its cumulative effect. Dr. Fothergill's experiments with digitalis are the latest, and are very reliable and valuable. In vivisection of the frog, the heart was exposed, and, by the action of aconite, was almost suspended, when digitalis was applied to the sympathetic, which immediately excited powerful ventricular contractions, expelling the accumulated blood into the arteries, and prolonging the life of the animal.

It is represented by Wunderlich, Hankel, Henderson, Jones, and other late observers, that digitalis prolongs the attack of typhoid or other fevers in which it may be used. This is in accordance with my experience, and it constitutes another evidence of the agent being a special cardiac stimulant and tonic, and renders it apparent to every thinking physician that the medicine should be avoided in all mild forms of fever, and in the first stage of typhoid fever, allowing the condition of the heart to be the guide to its use.

As to digitalis ever reducing the pulse below its normal or usual number of beats, when given in therapeutic doses, I doubt, as not an instance of the kind has ever come under my observation.

But that it quiets the heart's action, and reduces the frequency of its beats in the way I have explained, there can be no doubt, and it is this which gives the agent its highest claim in therapeutics. It is this property which enables it to arrest the progress of degeneration of structures, by sustaining the vitality of the whole animal economy, and in preserving the organic functions in equally balanced activity.

There are some drawbacks to digitalis in addition to those already mentioned, which should be referred to. In a small proportion of cases treated with it, there was a troublesome gastrorrhea, which demanded the suspension of the medicine for a short time, and the substitution of tincture of iron. There occurred in two or three cases a painful affection of the stomach, which I am sure depended upon the digitalis. Salivation was an occasional result, though always slight.

As to the diuretic powers of the medicine, my observations correspond with the statements of Dr. McLean, who wrote his book sixty years ago, that it never directly stimulates the renal organs to increased activity, but in dropsy acts by powerfully exciting the absorbent system, which causes the serous effusions to be taken up, and, the kidneys being the natural outlet for the superabundant fluids of the system, there is established a physiological diuresis. When the kidneys are torpid, they will require stimulation by special diuretics, or a vicarious ac-

tion will probably be established in the bowels or salivary glands. When there is no dropsical effusion, not the slightest diuretic action of the digitalis has been observed in a single case.

Digitalis should be given uncombined with other medicinal agents. I usually give it diluted with pure water. Acids of all kinds have the effect to render digitalis inert. This was asserted seventy-five years ago, and I find it to be a fact. Iron should not be used with it, nor should aconite, as the first is to some extent chemically incompatible, while aconite is antagonistic in its action. So is veratrum veride. In fact no medicine should be given at the same time, or at a shorter interval than two hours from digitalis.

Art. 3.—MEDIAN LITHOTOMY.

Being the Substance of Some Remarks, delivered before the Ohio Central Medical Association. By J. H. POOLEY, M. D., Professor of Surgery, Starling Medical College, Columbus, Ohio.

CASES.

CASE 1.—W. T., æt 17, born in New York: He was a tall, pale, black haired youth, of slender frame, and feeble constitution. He complained of symptoms indicative of stone in the bladder, such as frequent urination, pain in passing water, &c. He said that he had been more or less troubled in this way for some years, and had had medicine prescribed for him by several physicians, but without any benefit. Upon sounding him, the presence of two moderately-sized calculi in his bladder was diagnosticated.

On June 10th, 1871, the operation of median lithotomy was performed, and two smooth, oval, flattened calculi were removed, each about the size of a pigeon egg.

They were dark colored externally, but lighter within, and very friable; they weighed together five hundred grains.

The operation was unattended with any difficulty or circumstance worthy of note. He had complete control of his bladder from the first, and soon began to pass part of his urine per urethram; but though the wound nearly healed up, it did not do so entirely, and he continued to pass part of his urine through the wound—this seemed to be owing to the state of his general health, which was very poor—but as it continued open, without any prospect of healing, it was determined to make a thorough examination.

Accordingly, September 21st, he was etherized and the urethra and wound explored. There was no stricture; a No. 12 elastic catheter passed easily. On examining the wound, a fistulous orifice was found communicating with the rectum, directly in the median line opposite the raphe of the perineum. By the advice of those in consultation, though somewhat contrary to my own judgment, the wound and rectum were laid freely open by incision through the fistulous orifice dividing the sphincter.

The wound thus made gaped widely. A small opening existed in the urethra in its membranous portion.

A catheter was left in the bladder for twenty-four hours, and the wound dressed with lint, as in an ordinary operation for fistula in ano, which it resembled. These proceedings, however, were of no benefit to the patient; the edges of the wound continued wide apart, and showed no tendency to heal, and finally became skinned over; the urine still passed partially by the artificial opening, and was heavily loaded with pus and mucus, and he partially lost control of his bladder, so that it soaked the sheets on which he lay; each act of urinating gave him severe pain.

October 15th.—Patient is pale, emaciated, and weak; has but little appetite, takes six ounces of whisky a day in the form of milk punch; has pain over the region of the bladder and kidneys. For the past few days his bladder has been washed out with warm water once a day; complains of great pain after the operation.

October 20th.—He complains of great pain in the left side, over the region of the kidney extending up into the thorax, for which hot applications were ordered. He has also a diarrhœa, for which bismuth nitr. and morphia were given.

November 1st.—Patient is becoming weaker, has a great deal of pain in the left lumbar region, and in the bladder; washing out of the bladder has been continued nearly every day for the last four weeks. Pulse 90, respiration 28, temperature 100°.

November 8th.—Patient continues to grow weaker, and, as it causes him pain, and does no good, the syringing of the bladder is discontinued.

November 17th.—Patient much the same; complains constantly of pain in the kidneys and bladder, for which hot fomentations are applied, and morphine administered. The whisky disagreeing with him, he was ordered sherry wine instead.

Pulse 128, respiration 32, temperature 100½°. Urine loaded with pus and mucus, and is very offensive; it all passes through

the opening in the perineum, and he has very little control over either his bladder or rectum. He still sits up a little each day.

December 2d.—Patient is becoming so weak that he can hardly sit up at all; condition in other respects unchanged since last report.

December 18th.—Patient much the same. For a week past has had night sweats; he is obliged to take large and frequent doses of morphine to subdue pain.

December 28th.—Pain more severe. He was quieted this evening with a hypodermic injection of morphine.

January 2d., 1872.—Patient getting weaker and weaker. His diet consists of milk, wine and hot whisky. He has no control over his bladder or rectum, both urine and fæces passing involuntarily.

January 7th.—He died quietly at 10 A. M. to-day.

Autopsy.—Twenty-four hours after death. Rigor mortis well marked; body emaciated; lungs and heart healthy; liver congested, substance pale, and on section smooth, hard, and mottled in appearance; gall bladder contained about half an ounce of dark colored bile; spleen rather larger than normal.

Kidneys.—The right was considerably larger than normal; upon section, cortex pale, pyramids partially obliterated; cavity of the pelvis filled with pus. The left was reduced to a mere sac filled with pus, all traces of kidney structure having entirely disappeared; it contained a large, irregularly three-cornered, rough calculus, nearly as large as a black walnut.

The ureters were greatly enlarged and thickened. The bladder was very much diminished in size, its walls thickened, the mucus membrane thrown into large folds or rugæ, and covered with dark echymotic spots. The prostate, enlarged, consisting of two cavities containing pus, each opening into the rectum.

There are many reflections suggested by this painfully interesting case. It presents a striking example of the extensive changes in the urinary apparatus, extending to every part thereof, which sometimes follow neglected or overlooked stone in the bladder. Diminution of the caliber of the bladder, irritation propagated along the ureters to the kidneys, damming up of urine in the pelvis of these latter organs, leading to inflammation and destruction of tissue, with secondary calculus deposit from retained urine, and profound consequent deterioration of the general health; these are parts of the catalogue of ills that wait sometimes upon calculus in bladder.

The best illustrations of these morbid conditions to which I can refer are to be found in Crosse's "Prize Essay on Urinary Calculus;" where several cases resembling the one just detailed are described and figured. With regard to the failure of the wound of operation to unite, both that, and the opening into the rectum are, I think, to be attributed to the condition of the patient's health. I am certain that the opening into the rectum was not made at the time of operation; indeed I do not see how it could have been without being detected at the time or shortly afterward; it probably occurred sometime subsequently by ulceration, or was connected with the abscesses discovered in the prostate after death.

In further confirmation of this idea, I quote from Crosse's "Prize Essay," already referred to, page 84:

"The rectum is so contiguous to the urethra, that an opening may occur subsequent to the operation from sloughing resulting from violence, or from ulceration in a bad constitution."

With regard to the treatment of such a complication, he says, a little further on, on the same page: "Where the perineal opening also remains, forming a recto—perinæo—urethral fistula, dividing the verge of the anus by an incision including the parts between the two openings, has been recommended; I once succeeded by this method." The general advisability of such a proceeding seems to be doubtful, at least to my mind. There is one strong objection to it—if the incision is carried through the raphe of the perineum, as it almost necessarily must be, the central point of the attachment for the converging fibres of the sphincter is divided, and the natural result will be a wide separation of the divided portion of the muscle, similar to what happens in lacerated perineum, and perhaps finally necessitating a similar operation for its cure.

In the case under consideration this seemed to be the result: the edges of the wound were drawn widely apart, there was no tendency to heal, and they became firmly skinned over, so that they never could have healed without some further operation: but perhaps no inference can be justly drawn from a single case, and especially from *such* a case. Notwithstanding the unfortunate issue of the case, it can in no way be attributed to the operation, which was useful in alleviating, though only temporarily, some of the distressing symptoms under which the patient labored and had no more to do with his death than if he had died fifty years afterward of Cerebral Hemorrhage.

CASE 2.—Thomas P.—, aged seventeen years, born in New York. Father and mother both dead, cause of death can

not be ascertained. He has two brothers and two sisters, one of the sisters has phthisis pulmonalis, the other sister and brothers in good health. He was paralyzed on the right side when an infant less than a year old. The history of this attack is very imperfect and obscure, but his present condition seems to indicate that it was the essential paralysis of infancy; the right side still partially paralyzed, somewhat smaller than the left, the muscles permanently contracted, some mental weakness or imbecility—tongue still deflected to the right. When he first came under my notice he had paraphimosis, caused by manipulation of the penis; this was easily reduced, when the prepuce was found to be preternaturally long, and there was incontinence of urine, the urine flowing almost constantly without control of the patient. Examination with the sound was now made, and revealed the presence of stone in the bladder. Diagnosis of two, not large, verical calculi was made, and on November 1st, 1871, the operation of median lithotomy was performed, and two calculi about the size of hickory nuts, and very irregular in form were removed. These calculi were irregularly smooth and polished, and being of a bright chocolate color, and marked with concentric rings of lighter hue, they presented an appearance best compared to polished agates; they consisted externally of urate of ammonia, and after the lapse of a few weeks their color in a great measure faded, so that they are now of a pale lavender tint.

At the expiration of twenty-four hours the patient began to pass part of his urine per urethram, although most of the urine was passed through the wound for the next ten days, after which the urine all passed naturally, his incontinence ceased, he was discharged cured, and has remained well ever since.

CASE 3.—H. W., aged nine years, born in the United States, came under observation June 13th, 1873.

His mother says that he first began to complain about the previous New Years or Christmas; his first complaint was of pain in his side (lumber region); they thought he had worms, and gave him some vermifuge medicine; he passed no worms, but seemed to get better after this, but only for a few days, he then began to have incontinence of urine, both nocturnal and diurnal, wetting his clothes frequently by day, and his bed *always* at night; this symptom still continues. He has severe pain in making water, and also before and after the act; some times he has sudden stoppage of the stream, and at other times difficulty in starting it; when he strains violently he has pain in the end of his penis, and frequently pulls at his prepuce,

which shows some evidence of this by being slightly elongated. His mother has never noticed either blood or pus in his urine, though she says, it is sometimes thick; running or jumping gives him pain. He is a well grown boy for his age, but has a pale, worn look, indicative of habitual suffering; his bowels are regular, but his appetite is poor, and he is losing flesh; his face is pitted with small-pox. He was chloroformed, a sound introduced, and a stone readily found; I judged it to be single, of moderate size, and hard consistence.

He was ordered to be kept quiet, have medium diet, flaxseed tea for drink, and an anodyne at bedtime.

June 14th.—He took ten drops of McMunn's elixer last night and slept well all night; he wetted his bed in the night; seems quite comfortable this morning.

June 17th.—The patient has been very comfortable since last report. He wets his bed every night, but has only passed urine involuntarily during the day time once; he complains of little or no pain on making water. To-night he is to have a dose of castor oil, and at noon to-morrow a large injection of warm water.

June 18th.—At three o'clock P. M. I performed the operation of median lithotomy, and removed an exceedingly rough mulberry calculus, weighing eighty grains. The operation presented nothing worthy of remark, and was accomplished without difficulty of any kind. For the first few days the patient, though he had not complete incontinence, had much less control over his bladder than we usually see after this operation; when he felt the desire to urinate and called for the bedpan; if it was not supplied instantly, he could not retain his urine, but wetted the bed.

After a few days this passed off, and he had complete control of his bladder during the day time, but occasionally wetted his bed at night.

His recovery was considerably retarded by an attack of, apparently, circumscribed inflammation about the cæcum; there was a good deal of pain, with exquisite tenderness in the right iliac fossa, hot skin, furred tongue, pulse 120, temperature 102°. He was treated with morphine and poultices. The tenderness did not spread, and in about ten days the attack subsided; his mother informed me that he had had one or two previous attacks of a similar character. He was discharged well July 21st, and I saw him about a year after, the picture of health, a perfect contrast to the pale, worn boy I had operated upon.

CASE 4.—Patrick D——, æt. 22 months, born in Columbus, Ohio. This child had been suffering from symptoms of stone

for nearly a year before I saw him; he had pain in making water, copious deposits of phosphates and mucus in his urine; pulled constantly at his prepuce which was elongated; had a diarrhoea with prolapsis ani, and was generally pale and miserable looking. On sounding the evidences of stone were distinct, and I operated on him by the the median method on July 4th, 1875, in the presence of Drs. Loving, Wheaton, and Frankenberg of this city. The perineum was deep, and owing to the small size of the parts, a little time and patience were required in getting into the bladder, and extracting two phosphatic calculi, about the size of common marbles.

He made an excellent and uninterrupted recovery, having complete control of his bladder from the first. At the first urination after the operation, he passed considerable blood and calculus debris. He began to pass water per urethram in forty-eight hours, and ceased to pass any through the wound on the tenth day. He had entirely recovered in three weeks, and has remained well ever since.

CASE 5.—Mr. S——, German, æt. 54, resident of Morrisania, N. Y. First noticed symptoms of stone a year before I saw him, which was in the middle of August, 1875.

The first symptom he noticed was a sudden stoppage of the stream while under full headway. It is not necessary to detail his symptoms. The sound detected a small calculus, and I operated on him, after the usual preparation, by the median method. The operation presented a slight difficulty, which I presume is an unusual one: The calculi, of which there were two, were somewhat difficult of extraction, not on account of their large, but of their *small* size.

I must also mention that, in incising the urethra, in the manner to be hereafter described, I entered to point of the knife twice. The remarkable part of the case is to follow. He never passed any urine through the wound at all. Some hours after the operation the doctor in attendance was called to see him, and found him suffering from a distended bladder, and wholly unable to relieve himself. He introduced a female catheter through the perineal wound with the utmost facility, and emptied the bladder. It was necessary to do this twice or three times a day, until the urine began to pass per arethram, which it did in ninety-six hours, and from that time continued to do so entirely. This facility of introducing an instrument from the outside, with impossibility of urine flowing from the inside, must have been caused by some valvular arrangement given to the wound in the urethra by the double puncture. I have never heard of a similar case. This man was up eating

dinner with his family the next day, and has remained well ever since. These last two cases, one at twenty-two months, the other at fifty-four years, represent the extremes of age at which I have operated, and it seems the operation is equally well adapted for either period of life.

It is somewhat singular that in all the cases but one there have been two stones.

DESCRIPTION OF THE OPERATION.

The Median, or Allarton's, or Marian's, or operation by the Apparatus Major, as it is variously called, was introduced by Joannes de Romanis, a surgeon of Cremona, in Italy, in the fifteenth century; but its great advocate at the time, and the person whose name it bears, was Marianus Sanctus Borolitanus, who describes it in most magnificent, or as we may say, most highfalutin terms. It was called the operation of the Apparatus Major, from the number and complexity of the instruments employed in its performance, which consisted of—*a*, a male conductor; *b*, a female conductor; *c*, a simple dilator, and *d*, a blunt gorget, in addition to the cutting instruments, forceps, etc. Nothing can exceed the ludicrous pomp of some of the descriptions of Marianus, as, for instance: "Look but to the aperians (dilator), how it gapes with desire, when the conductors have made way for its approaching, and, seizing the stone, it rages like a ferocious soldier ready to enter the breach in the walls of a besieged city; next comes the voracious and vociferous forceps, roaring and gaping for the stone." In this extraordinary style, is the whole account of Marianus written.

The operation which he describes was based upon the principle of dilating the prostate and neck of the bladder, instead of incising these parts as in the other modes, and, notwithstanding the laceration of the vesical neck, sometimes to a horrible extent, by the rude and brutal force exerted by their barbarous instrument, and the rhodomontade of Marianus, and the opposition of the advocates of the lateral operation of Frere Jacques, it held its place in surgery for about a hundred years. By this time the lateral operation had been so thoroughly improved, and so splendidly executed by the conjoint labors of so many surgeons, principally by the English Cheselden, that it eclipsed all rival methods, and the Marian operation was abandoned, if not forgotten.

It was revived in all its *essential* features by Mr. Allerton, a provincial English surgeon, but much simplified in its details,

about the year 1850, and ever since has been more or less practiced, under the name of Allerton's or the Median Operation. Mr. Allerton himself has been its principal English advocate. In this country it has been most frequently performed by Dr. Walters, of Pittsburg, Pennsylvania, whose cases in 1870 numbered forty-seven, without a single death.

Drs. Markoe and Little, of New York, are among its most able defenders and practicers at the present time, but though they and others have ably set forth its claims to confidence, I find that it is not yet appreciated at its full value, and here it is almost unknown, never having been performed, as far as I can learn, in this city, until I did myself on the 4th of July last.

I propose now to describe the operation as at present performed, and then to speak of its advantages and indications. The rectum having been previously emptied and washed out, the patient is anæsthetized, placed in the usual lithotomy position, and the grooved staff introduced and entrusted to an assistant, who is to hold it firmly in an exactly vertical position, and pressed closely up against the arch of the pubis.

The operator now introduces the fore-finger of his left hand into the rectum, for the double purpose of securing the contraction of the gut, and defining exactly the apex of the prostate—he should feel this distinctly, and it is desirable also to recognize the groove of the staff in the membranous urethra just beyond it.

Taking now a long, sharp-pointed, narrow bistoury, the common finger knife, he introduces it back downwards in the raphe of the perineum, about half an inch above the anus, and, thrusting it through the tissues, lodges its point in the groove of the staff, just beyond the apex of the prostate, at the point indicated by the finger in the rectum. Moving the point of the knife gently up and down, to be sure that it is safely in the groove, he now, cutting directly upwards, incises the membranous urethra in the median line for half an inch or rather more, and then, elevating the handle as he withdraws the blade, enlarges the external opening to the requisite extent, say about an inch. He now, with his right hand, introduces, along the groove of the staff, a probe, or director, into the bladder; for this purpose Dr. J. L. Little, of New York, has devised a grooved, somewhat pointed or tapering director, with a handle bent or depressed to an angle of forty-five degrees, which answers the purpose admirably. The staff is now withdrawn, and the finger of the left hand introduced into the bladder along the director, the number, size, and situation of the cal-

culis made out, and the forceps entered, and the stone or stones removed.

In introducing the finger it is done slowly, cautiously, and with a gentle twisting or screwing motion, by which the parts are safely and sufficiently dilated; sometimes, in young subjects, the little finger may be used. The forceps need seldom be longer than the common slightly-curved dressing or polypus forceps of the surgeon's case.

After the stone is grasped in such a way as to bring its smallest diameter in relation to the wound, it is withdrawn by a slow, twisting motion, care being taken not to hurry, because impatient, or commit violence.

If the calculus is too large to be safely withdrawn, it may be crushed with a suitable instrument, lithotrite or lithoclast, and the fragments separately removed. The bladder is now syringed out with warm water, and the wound left to itself. There is no need to fill the bladder with water, or allow it to become distended with urine in this operation; indeed, I believe it to be a useless measure in all operations except possibly the supra pubic.

Inasmuch as some difficulty has sometimes been experienced in engaging the knife in the groove of the staff, and it has sometimes, even by expert operators, been thrust by the side of the staff into the surrounding tissues, Dr. Markoe, of New York, has contrived a staff in which the groove is flattened out, as it were, and made very wide and shallow.

This, I think, is somewhat objectionable, as in such a shallow groove, with the urethra tightly stretched over it, the wound is not so sure to be lineal and longitudinal, its only safe form, but is apt to deviate, and become diagonal or even transverse. I avoid the difficulty spoken of by what I consider a much safer and better plan, namely, by beginning with a regular incision, in the ordinary way, made from without, extending from about an inch above, nearly down to the anal margin, and dissect down to the urethra, or pretty near it, before using the long bistoury and entering the groove.

The operation done thus is slower and less showy than in the other way; but this, I think, is more than compensated for by its superior safety. In the rest of its details, the operation is as already described.

ADVANTAGES OF THE OPERATION.

These I shall speak of very briefly, under six heads. First, better results than the other methods—as already mentioned, Walters, of Pittsburg, had a series of forty-seven cases without

a death. This is, of course, exceptional, and inconclusive, but from an examination of all the statistics accessible to me, I find the mortality to be only one in thirty-five. This is certainly a very favorable result, and fully twice as good as the lateral, if not any other method can show, and would be much better if the operation had been confined to suitable cases, which has not always been done.

Second—Facility of entering the bladder. This seems to me indisputable, though, strangely enough, some authors speak of the lateral as the easiest operation, at which I can but wonder. The route is here direct—the most direct possible, the intervening tissues less than in any other way, and it seems to me, if in any case difficulty has occurred, it must have been greater had any other operation been chosen.

Third—Less liability to hemorrhage. This is reduced to a minimum, indeed, if the incision be strictly median, as it should be, there are no vessels to bleed. The only possible source of bleeding is from the bulb, but the incision need never be carried high enough to touch this, and even if it should, it is easier reached and dealt with than by any other form of incision.

Fourth—Less danger of wounding the rectum. The cutting edge of the knife being turned directly away from the gut, in every part of the deeper incision, even when a preliminary incision is made, as in my own method, this can never occur.

Fifth—There is no danger of wounding the deep perineal fascia, and producing infiltration of urine.

Sixth—As an almost invariable rule, the patient has complete control of the bladder after the operation. This I regard as the crowning glory of the Median operation. No lithotomy sheet, no dribbling urine, no urinous odor, no excoriations of the integument—everything dry, clean and comfortable, the patient urinating voluntarily at long intervals. What a contrast to the condition of the patient after lateral lithotomy! What a heaven of comfort! No words of eulogy can insure the effect that the simple statement of the facts ought to produce.

In conclusion, my own impression is that recovery takes place much more quickly after this than after any other operation for stone in the bladder. I believe that when this operation is limited to small or moderately sized calculi, for which it is best adapted, it will win its way to universal favor. In such cases, especially in children, I can not even imagine a more thoroughly simple, easy, and satisfactory surgical procedure.

**Art. 4. — OBSERVATIONS ON REVACCINATION,
During the Epidemic of Variola in Cincinnati, in
November and December, 1875.**

A Paper read before the Cincinnati Medical Society, December 14, 1875, by
WM. B. DAVIS, M.D., Professor Materia Medica and Thera-
peutics, Miami Medical College.

The presence of variola in our city has caused much apprehension to our citizens, and led many, particularly those who have been exposed to it, to seek the protection which vaccination and revaccination give. In common with other physicians, I have been called upon to revaccinate a number of persons. My past experience had not led me to expect any marked result when the operation had been well performed once, hence, I executed it more as a precautionary measure to those who had been exposed, knowing that a small fraction of mankind may take variola twice, and believing that this susceptible class may take the vaccine disease more than once. During my experience as a practitioner of medicine in this city, extending over twenty years, I have frequently been called upon to revaccinate, particularly whenever variola was prevailing, and yet I do not now recall a single instance wherein it was successful, or where it produced any degree of inflammation, which attracted the attention of the party. It is true that I never made it a point to follow up the cases and see for myself the result, yet I think it is reasonably certain that if severe inflammatory symptoms had occurred, my attention would have been called to them, for the majority of these persons were my regular patrons.

In the early part of November last I revaccinated a family of seven persons, including domestics. I was not a little surprised when summoned, on the eighth day thereafter, to see the lady of the house, who was said to be suffering very much with her arm, the one vaccinated. The lady is eighteen years of age, of a nervous temperament, and has one foveated cicatrix, about one-fourth of an inch in diameter, resulting from her primary vaccination in infancy. I found her with a flushed face, accelerated pulse, complaining of chilliness, followed by fever and headache. An examination of her arm revealed, at the point of the insertion of the virus (I had scarified a surface at the insertion of the deltoid of the left arm, about one-third of an inch in diameter, and plastered the virus over it) a vesicular eruption, confluent in character, the outer rim elevated and of a pearly hue, with depression in the

center. It was just such a result as usually follows a primary vaccination by scarification at the end of the eighth day, when the areola is forming. Her arm differed from a primary vaccination in this, that there was a higher grade of inflammation than I had ever seen, involving and encircling the whole arm. On the ninth day the glands of the axilla were enlarged and painful, and the inflammation extended one-third down the fore-arm. On the tenth day her fore-arm was swollen to the wrist, but her arm was subsiding; from this day the swelling rapidly declined, and on the fifteenth day there was a well-formed crust, which adhered until the twentieth or twenty-first day. One other member of this household, a servant, a strong, robust woman of twenty-five years, had just such an arm as her mistress. Two others, aged sixteen and eighteen, healthy girls, had well-marked vesicular eruptions at point of vaccination, and inflammation encircling the arm on the seventh day, but it rapidly declined from that date. In the remaining three there was no result.

About this time I was called to see two cases of varioloid, and one patient was brought to my office on whose person the eruption of variola appeared twelve hours afterward; hence I concluded that it would be prudent to revaccinate myself and the members of my household, seven in all. I will state just here that it has been my custom every year, when exposed to variola, to insert some reliable vaccine virus into my arm. I probably have done it not less than ten times during the past twenty years, and the result has been absolutely nothing, save the very slight irritation resulting from scarification, which subsided, usually, within three days. I revaccinated myself and family on November 23; in four members there was no result; in the fifth, a boy of fourteen years, on the fifth day all of the appearances indicated that it would be successful—there was a minute vesicular eruption, and inflammation rapidly developed around the point of insertion, and extended around the whole arm by the sixth day, and then rapidly subsided by the tenth day. It presented the appearance of a “modified vaccination,” if I may be allowed to use the expression. We know that, as a rule, where an individual takes variola after vaccination, the disease is “modified,” so modified that there may be no secondary fever, and, indeed, there may be no eruption, or but one or two imperfect vesicles. I know that some medical gentlemen have pronounced such vaccinations “spurious vaccinations,” or “not vaccine processes.” I think these gentlemen have misread Seaton, who says, on page 113 of his “*Hand-Book on Vaccination*,” Revaccination

fails "to produce any local effect whatever, or producing a modified effect, resembling one of the forms of spurious vaccination." I do not think that a careful reading will lead any one to the conclusion that he regarded these modified vaccinations as having "no specific vaccine process." On the contrary, on page 311 of his Hand-book, he distinctly recognizes them as possessing the regular phenomena of vaccination. Under the head of "Degree of Success of Revaccination," his classification is "Perfect," "Modified," "None." During the present epidemic I have seen very many such revaccinations. They undoubtedly followed some law, for they were uniform in their development, appearance, and subsidence. On the fifth day there were present all the indications of a successful, normal vaccination; a vesicular manifestation maturing, or rather arriving at the stage of its fullest development, on the sixth or seventh day; then a rapid areolar growth, extending in an irregular manner until it involved and encircled the arm, and a complete subsidence by the tenth or eleventh day. If this be "spurious vaccination," then is varioloid spurious variola. But to return to my story. My wife had been successfully vaccinated in infancy, and has a good mark resulting from it. We (self and wife) felt our arms getting sore on the fifth day. A patch of vesicles appeared at the point of insertion of the virus, and they gradually increased until the eighth day, when, by coalescing, they presented a confluent appearance, covering a surface one-third of an inch in diameter, having an irregular circumference, made up of numerous imperfect vesicles, which were slightly elevated at the edge and depressed in the center. On the evening of the eighth day, Tuesday, November 30, I exhibited my arm to the members of the Cincinnati Medical Society. On the after part of that night I had severe inflammation of my whole arm, extending to my elbow; slight constitutional disturbance, as exhibited by a general malaise. My wife was similarly affected. After the tenth day all symptoms rapidly subsided, and large crusts formed on our arms by the fourteenth day.

Mr. Seaton, in his "Hand-Book of Vaccination," page 113, speaking of "spurious vaccination," says: "The scab, small and imperfect, forms generally on the eighth day, and soon falls." Quite a number of the scabs of my revaccinations were large, and possessed all the characteristics of a primary crust, and were adhering to the arm on the twenty-first day.

These cases and others led me to closely observe all my revaccinations from the first of November to the present date. I made a record of the number, age, condition of primary

cicatrices, date of revaccination, and the result. I have subdivided them into four classes:

1st. Those in which the symptoms reached their height on the fifth or seventh day, having more or less of a vesicular development at the point of insertion, and which were characterized by more or less inflammatory action of the arm, and then rapidly declining by the tenth or eleventh day.

2d. Those which closely resembled a regular primary vaccination in all their stages.

3d. Those which, while following the course of a primary vaccination, were characterized by high inflammation, involving the arm, axillary glands, and, it may be, the fore-arm.

4th. Those in which there were no results.

Below I present the tabulated results of observations on 152 private patients. *Table A* shows the condition and number of primary cicatrices and the results. *Table B* shows the results of the re-vaccination of fifty students of the "Miami Medical College," on November 30th. On the *eight day*, or rather the evening of that day, Tuesday, December 7th, I displayed the arms of twelve or fifteen of them to the "Cincinnati Medical Society." They were those whose arms were most highly inflamed.

Table C shows the ages of the patients by periods.

C.—Ages of 152 Private Patients.

Ages.	Class 1.	Class 2.	Class 3.	Class 4.	Totals.	
1—15...	22	6	4	16	48	31 per cent. successful.
15—30...	26	5	12	21	64	42 per cent. successful.
30—60...	11	5	13	11	40	27 per cent. successful.
					152	

A—A Table of 152 Private Patients Revaccinated from November 1 to December 8, 1875, Ages Ranging from 5 to 62 years.

	Successful	No Result.....	Total	Taken Partially.	Perfectly	Severely.....	
One good foveated cicatrix.....	49	35		35	3	11	76 per cent. successful. } 62 per cent. successful
One superficial cicatrix.....	10		94	8		2	100 " " " }
Two good foveated cicatrices...	7	2	9	5	1	1	87 per cent. successful.
Three good foveated cicatrices.	7	4		5		2	63 per cent. successful. } 85 per cent. successful.
Three superficial cicatrices....	11		21	8	1	2	85 " " " }
Four good foveated cicatrices..	2	1		1		2	100 per cent. successful. } 80 per cent. successful.
Four superficial cicatrices.....	2		5			1	66½ per cent. successful. }
Six good foveated cicatrices....	4	2			3	1	60½ per cent. successful. } 74 per cent. successful.
Six superficial cicatrices.....	7	2	15		3	4	77 per cent. successful. }
*Persons pitted with variola...	5	2	7	3	2		71 per cent. successful.
Totals.....	104	48	152	65	13	26	

*If we add the student who had variola twenty years ago, and who was successfully revaccinated by me on December 5, it would make the per cent. of those who were pitted with variola or varioloid, and were successfully revaccinated, 75 per cent.

B.—Table of Students (50) Revaccinated November 30, 1875. Condition of Primary Cicatrices and Result.

	Successful.....	No Result.....	Total.....	Taking Partially	Perfectly	Severely.....	No result.....	
One good foveated cicatrix.....	10	8	.....	7	1	2	8	55 per cent. successful } 57 per cent. successful }
One superficial cicatrix.....	8	6	32	5	1	2	6	
Two good foveated cicatrices.....	3	1	.....	2	1	.....	1	75 per cent. successful. } 100 per cent. successful. }
Two superficial cicatrices.....	2	.....	6	1	1	.....	.....
Three good foveated cicatrices.....	3	1	.....	3	.....	.....	1	75 per cent. successful. } 100 per cent. successful. }
Three superficial cicatrices.....	.....	1	5	.....	.....	.....	1	
Four good foveated cicatrices.....	4	.....	4	3	.....	1	.....	100 per cent. successful.
Four superficial cicatrices.....	.....	.....	.....	.....	.....	.....	.....
Six good foveated cicatrices.....	1	.....	.....	1	.....	.....	.....	100 per cent. successful. } 50 per cent. successful. }
Six superficial cicatrices.....	.....	1	2	.....	.....	.....	1	
Variola cicatrix.....	1	.....	1	.....	1	.....	.....	100 per cent. successful.
	32	18	50					

I was astonished at the number of successful re-vaccinations, and also, at the severe constitutional disturbance attending some, which far exceeded the symptoms which usually characterize primary vaccinations. In attempting to account for the violence of these symptoms, I first turned my attention to the virus used, which was humanized lymph.

During the same period, November 11th to December 8th, under the same conditions, and in the same families, with the same virus, I had performed thirty primary vaccinations in children, chiefly under one year of age. The only difference in my vaccinations of primary cases was, that I made three insertions by scarification, about one-fourth of an inch each in diameter, and about one inch apart, whilst in re-vaccinations I made but one insertion, and that by scarifying a surface whose diameter was from one-half to one-eighth of an inch.

All were successful and typical vaccinations and were not attended by any inflammatory action, save the accustomed areola and slight constitutional disturbance on the ninth day, except in two instances, and those were brothers, aged respectively 8 and 10 years of age, and in them the inflammation involved the arm, axillary glands and fore-arm.

C. P. Brent, M. D., of Cincinnati, had kindly supplied me with the virus from which I had, by successful vaccination, obtained the stock I used. I called upon him and asked if he could give me the pedigree of his vaccine stock, particularly of that which he had furnished me, and also inquired whether any unusual symptoms had attended his vaccinations and re-vaccinations this season. In reply he stated that his knowledge of his vaccine stock extended back three years, during which time he was accustomed to keep up a fresh supply, by vaccinating every two weeks. He said that he was uniformly successful in his primary vaccinations, and had observed nothing unusual in them, but that in his revaccinations he had been struck with the number, which were successful this season. Being convinced that the vaccine virus was not at fault. I could think of no other reason for this extreme susceptibility to the vaccine influence, as well as the undue inflammatory expression of its action, than the recognized power of "epidemic influence."

In order to form some idea of the intensity of that power. I applied to the Office of the Board of Health, of Cincinnati, and learned that during the period covered by my observations. From November 1st, to December 8th, there had been 1,031 cases of variola reported, of which number 280 died. These, together with the fact, that all the persons revaccinated had

been directly or indirectly exposed to the disease, many having the contagion in their families or household, are probably the real causes.

Dr. Brent, had observed this great susceptibility in his practice, but had not tabulated his cases. He could not tell what per centage had been successful, but he knew that it was far greater than in former years. He distinctly remembers ten cases of revaccination which took as well as primary vaccinations, seven of these had two distinct marks from their primary vaccinations, and three had one distinct mark each. As an experiment he vaccinated a child with the crust from the arm of one of these persons, and it took as well as any primary vaccination he had ever seen. To test this latter vaccination he subsequently inserted fresh lymph from a primary vaccination and there was no result.

Dr. Wm. Judkins, has kindly furnished me the tabulated results of his experience in Revaccination during this epidemic:

Number Revaccinated,	. . . . .	85
Number Successful,	. . . . .	37
Number Failures,	. . . . .	48

Of those which were successful, about one half took mildly, and the remainder severely.

Of the above, 55 were vaccinated with humanized lymph, and 27 were successful, 50 per cent.

Thirty were vaccinated with animal virus, and 10 were successful, 33 per cent.

Dr. Thomas Wood, of Cincinnati, and Dr. P. M. Williams, of Cheviot, whose observations extend over twenty-five years, informs me that they have never known revaccinations so uniformly successful and attended with such high inflammatory action.

L. A. Querner, M. D., Physician to the Cincinnati Work House, informs me that he has revaccinated six hundred (600) of the inmates of the Work House, since the first of November, 1875, using Animal Virus, and 67 per cent. were successful.

Of those who were pitted with the cicatrices of Variola, 62 per cent. were successfully revaccinated.

Of the 202 cases reported by myself, 66 per cent.* were successfully revaccinated. Of the number 42 per cent. belonged to Class 1, those who took it partially; and 24 per cent. belonged to Class 2 and 3, those who took it more or less severely.

* Our observations were made without the knowledge of the other, and the similarity of our respective per centage of success, was as great a surprise to ourselves, as it will be to the reader.

THE CONDITION OF THE CICATRIX.

One hundred and twenty-six had but one cicatrix. Of those 62 per cent. took the vaccine.

Of those who had good foveated scars, one each, 56 per cent. were successful. Of those who had superficial scars, one each, 85 per cent. were successful. Of those who had distinct marks of variola and varioloid, 75 per cent. were successful.

Of those who had two, three, four and six cicatrices, the number is not sufficiently large to warrant an opinion; nevertheless, as far as they go, they indicate that numerous cicatrices do not give more protection than one.

In one of the revaccinated students, two "supernumery" vesicles showed themselves, and ran the same course as those formed at the point of the insertion of the virus; one of these vesicles, the most typical one, formed on the inner aspect of the arm, at a point where no accident could insert it. Both Mr. Seaton and Mr. Simon, say that supernumery "eruptive" vesicles are extremely rare. Those experienced vaccinators are not certain that they have ever seen any, regarding such supernumery vesicles as they have seen, as the result of accidental insertion of virus. (Seaton's Hand-Book, page 96).

Among the students were two gentlemen, upon whom the vaccine virus had never taken; one had had it inserted upon ten different occasions during his life, and the other twenty-two times; the last attempts were by myself, and the results were absolutely negative. There were no cicatrices upon their arms, and they never had the virus inserted any other place. These persons belong to an extreme and small class, who are, for the time being at least, *insusceptible* to vaccinia or variola.

On the other hand, there were two cases illustrative of the opposite extreme and exceptional class, those whom neither vaccinia nor variola will protect from a future attack of variola—viz: the extremely *susceptible* class. The first of these cases was a boy of twelve years, having a good primary scar, in whom the secondary vaccination took well; yet, on the 21st day, and while the crust was still adhering to his arm, broke out with a well marked, but very mild case of varioloid. The scabs of the pustules were scarcely dry before he had a typical attack of the measles. He is now well. The other case was a student thirty years of age, who was vaccinated successfully in 1863 (Primary), and has a good large foveated scar. On the eighth day of my revaccination of him, there was a vesicular eruption at the point of insertion, confluent and rather

flattened in appearance; the areola or rather the irregular inflammatory action extended full two inches from the point of insertion. He felt quite feverish that evening, and returned home and went to bed, where he remained until discrete variola made its appearance three days afterward, and ran its course, seemingly without the least influence from his vaccination and revaccination. (He is now, Dec. 24th, convalescing, with a prospect of a speedy return to health).

Dr. Snow, Health Officer of Providence, R. I., one of the ablest and oldest Sanitarrians of our country, and one who has given the most systematic attention to vaccination, is reported as saying in the "Boston Medical Surgical Journal," 1871, p. 342, that, "in all his experience he had never seen a perfect vaccination produced a second time in the same person." I have presented to the Society, at its regular sessions, December 7th and 14th, over twenty students whom I had revaccinated, the evenings on which they were displayed being the eighth day. The members have seen and can decide for themselves how typical their vesicles were. I wish particularly to call your attention to the arm of Mr. La Rue, whom I exhibit this evening, December 14th. He is now just entering upon the ninth day of his revaccination. You will observe the vesicles are full, pearly and umbilicated; the areola is now about one inch in diameter, and if there is a single indication of a perfect typical primary vaccination wanting, I shall thank any member to call attention to it. Within one inch of these vesicles you will observe the cicatrix of his primary vaccination, it is unusually large and deeply foveated; it is what may be termed a Superior Mark.

I also invite your attention to the arm of Dr. Fletcher; this is the eighth day of his revaccination; you will observe that it has most of the traits of a primary vaccination. He had varioloid twenty years ago, and bears the mark of it.

The ages of my private patients, 152 in number, range from five to sixty-four years. About 75 per cent. were under thirty, and over 50 per cent. were between the ages of twelve and twenty-five, corroborating the conclusions of previous observers that puberty often re-establishes a susceptibility to the vaccine influence.

The average age of fifty students was twenty-three years.

These observations may not justify any conclusion which eminent vaccinators have not already announced; yet so important is the subject, and so wide-spread the interest in it, that it will do no harm to call the attention of the Profession to them.

I think a careful examination of the cases reported will warrant the following

CONCLUSIONS:

1st. That exposure to infection and intense epidemic influence largely increase the susceptibility of the system to the influence of vaccine virus, and accounts for the unusual number of successful revaccinations during the existence of an epidemic.

2d. That variola and varioloid give no more protection from a recurrence of variola than vaccination.

3d. The cicatrix is not a safe criterion of the degree of protection given by the vaccination from which it resulted.

4th. It is advisable to re vaccinate upon every exposure to infection, unless it has been done recently with success.

5th. Those who were successfully revaccinated were, to some extent, susceptible to the variolous influence; not that all would have taken the infection now, for an epidemic never takes all of the unprotected, but that they were in some danger is proven by the results of revaccination in the hospitals and standing armies of Europe. In the Prussian army, the annual deaths from small-pox, before revaccination was introduced, averaged 104; during the twenty years immediately succeeding the establishment of systematic revaccination there were but forty fatal cases, and Simon says but four of them had been successfully revaccinated. Mr. Simon further says, that since revaccination was made compulsory in the Bavarian army, in 1843, absolutely no cases of variola have occurred.

Mr. Seaton, in "Public Health Reports," 1873, says: In every hospital report which has reached me, it is specially stated that not a single one of those officials (attendants amounting to more than three hundred) who had been revaccinated before coming to take duty at the hospital contracted small-pox, but a few cases occurred in nurses and servants who were not revaccinated."

Art. 5.—Of the Comparative Merits of Oil of Sandalwood and Balsam of Copaiba, in the Treatment of Gonorrhea and Blennorrhæa.

BY THOS. C. MINOR, M. D., Cincinnati, O.

One of the most common diseases the practitioner in the city is called upon to treat, is gonorrhea, or when, as it frequently happens, the malady becomes chronic, a consecutive

gleet, or blennorrhea. The former disease is dependent either on a contagious element, derived from coition with one of the opposite sex, or, as is very often the case, from immoderate sexual intercourse, which is certain to give rise to excessive irritability of the urethra in the male, or the vagina of the female. In the latter case, if the person be the subject of alcoholic poisoning, or, in other words, one addicted to hard drink, the probabilities of an attack of the disease becomes much stronger.

A prevalent and most erroneous idea is that gonorrhea is necessarily dependent, primarily, upon contagion. The investigations of Ricord and Fournier show that this is not always the case. Many of the patients applying for treatment can give no definite history of their cases, and the period of incubation is often dated back for so long a time, that all idea of the disease being dependent on contagion must be precluded. The maximum period of incubation may be said to be five days in acute gonorrhea, contracted from a specific gonorrheal poison. Cases occurring one, two, or three weeks after coition, and, as has happened under my own observation, even as long a time as five weeks, without any subsequent exposure, must be classed in a different category. Notwithstanding this, both classes are amenable to the same treatment.

It is not the writer's intention in this short article to dwell upon symptomatology of the disease, nor to discuss in full its treatment. I merely wish to call the attention of the profession to two medicinal agents used in cases of gonorrhea—one remedy being very commonly employed, the other too often, I think, neglected. These remedies are copaiba and oil of sandal. During the year just ended (1875), the writer employed both these agents in a number of cases occurring in his practice, for the purpose of testing their relative merits in the treatment of patients suffering from gonorrhea and its consecutive complication, blennorrhea, or gleet. The results of cases following are taken from my case-book, and are abbreviated as much as possible.

En passant, it may not be out of place to dwell briefly on the history of the introduction of these two medicines as therapeutic agents. Jeannel (*Dictionnaire de Médecine et de Chirurgie*, vol. ix., p. 398) gives the following very interesting history of copaiba:

"Copaiba (balsam of copaiba, also, resin of copaiba), mentioned by Margraff and Piron in 1648, has been the object of a medical observation, published by Hope in 1710. It figures in the dose of three drops with castor oil and turpentine in the

Balsam Gonorrhoeicum Waldschmidt, inscribed in the *Lexicon Pharmaceuticum*, of Spina. The use of copaiba spread into Germany, Holland, England, and into Italy, during the course of the eighteenth century. Yet, Boerhavee (1751), notwithstanding the *materia medica* of Linne (1738), who attributed to copaiba an anti-gonorrhoeal action, only cites this medicine as producing tumor of the testicle, and deploras the use of it becoming vulgar in his time at Amsterdam, at Rotterdam, and in many hospitals. Copaiba was administered with success by Frederick Hoffman, Murray, Fuller, Lewis, and Monteggia, when that it was neglected in France, where Astruc (1755), serving as guide to his successors up to the time of Swediaur (1798), prescribed it in the insignificant dose of 6 to 30 drops, with a medley of useless drugs.

"Hunter (1786) foresaw the truth regarding the action of copaiba. For the remainder, copaiba only figured rarely in the prescriptions of French physicians during the second part of the eighteenth century, for it is not mentioned by Baume (1762). The same author (1784) wrote it only among ingredients of a polypharmic ointment, *l'onguentum martianum*. It is completely omitted by Morelot (1803). This same author (1807), Virey (1811), and even Caventon (1819), confine themselves to a short notice of copaiba. Schwilgue (1812) did not recognize in copaiba more of efficacy than in larch-tree turpentine. The Codex of 1818 admits copaiba in the nomenclature of simple drugs, but enregisters no formula, either officinal or magistral, for administering it.

"Among therapeutists, Swediaur (1798) came near the dose prescribed at the present day: he advised the administation of copaiba in thirty, forty, and even 100 drops (two to five grammes), in a glass of fresh water, but he much doubts whether it will be tolerated by the stomach. Yet Cullerier, in 1812, Alibert, in 1814, and even Lagneau, in 1818, still advised the same doses as Astruc. It may be in order to cite several French or Belgian physicians; Choppart, Ausiaux, Delpech, Barbier, Larrey, etc., who, in the first year of the nineteenth century, administered copaiba in large doses at the commencement of gonorrhea, and during the period of its duration. Rossignol (1819), in reporting the practice of Delpech, appears to have fixed ideas regarding the therapeutic importance of the medicine, and upon the doses in which it is necessary to administer it. Since that epoch copaiba has come into general use, and a great number of works have been published upon its physiological and therapeutical action."

In glancing over late works on therapeutics and *materia medica*, one is struck at the paucity of information regarding

oil of sandalwood. The earliest editions of Stille, Wood, and Waring, either neglect to speak of the medicine, or only briefly mention its name.

The profession is indebted, for the introduction of this valuable agent, to Dr. Thomas B. Henderson, who, in a communication to the *Medical Times and Gazette* (vol. i.—1865—p. 571), makes the following remarks on oil of sandalwood:

“It is obtained by distillation from the wood of the tree *sirinne myrtifolium*, of the genus *Santallum*. One hundred pounds of the wood yields two drachms of the oil. Lindley writes: ‘This oil is said to be used to adulterate the oil of roses.’ Prof. Redwood, in his supplement to the *Pharmacopœa*, on the authority of Dr. O’Shaughnessy, writes: ‘Sandalwood, in powder, is given by the native physicians in ardent remittent fevers; with milk it is also prescribed in gonorrhea.’ In my experiments with the drug I have found it perfectly innocuous, even in large doses.

“From twenty to forty minims, three times a day, diluted with three parts of rectified spirits, and flavored with ol-cassæ or ol-cinnam, is the ordinary formula I employ; water and a confection after. In cases of the disease at the first, second, or third stage, in susceptible persons, I have often seen the most marked suppression of the discharge within forty-eight hours. It has the great advantage of being a pleasant medicine, not liable to cause sickness, agreeable to the taste, and grateful to the stomach. It is a medicine, as to efficacy, in my opinion, equal, and frequently superior, to balsam copaiba or copaiba pepper. I have often succeeded with it when both had been fairly tried and failed. Besides, it is convenient and portable: and if the patient is delicate, or in bad health, or the system disordered, the possession of a remedy which will act as a stomachic medicine and cure the disease, is, I think, to be highly valued. I have used it in many cases during the last five years. I have no theory to offer as to its mode of action. My experiments have been numerous, but of an entirely practical character. The odor of the drug is slightly perceptible in the urine. Its action on the urethra, is observed in susceptible cases, within a few days after beginning its use.”

It will be seen from these statements that many high English authorities have confidence in its efficacy. The attention of the French profession was first *strongly* called to the remedy by George Durand (*These de Paris*, 1874). Durand states that in acute gonorrhea, when the symptoms are well marked, he gives from ten to twelve capsules of the essence, which contain from four to five grammes of the remedy. The next day

and the day after the dose is gradually increased, and by the fourth day the discharge becomes serious. "After this the dose is diminished to four capsules daily, and so continued until all symptoms disappear."

In the histories of the following cases of gleet, it will be noticed that the remedy of sandalwood is alone mentioned. For a number of years past, in common with many of the medical profession, I have used copaiba in cases of gleet, and have found it to be worthless in the majority of instances; its long-continued use deranging the digestion of patients, in some cases, and also producing the characteristic symptom on the skin, together with irritation of the kidneys. I have found the oil of sandalwood to be the remedy *par excellence*. Other cases of long-standing gleet cured by this remedy might be instanced, but let the following suffice:

CASE 1.—*Gleet of Long Standing Treated with Oil of Sandalwood.*

F., a native of Kentucky, sporting man. Date of consultation, Jan. 2, 1875; patient had been treated for a clap some eighteen months before, by an *advertising* specialist; he had been discharged from treatment as cured; he states, however, that a little muco-purulent fluid had ever since appeared at the end of his penis in the morning, and that his day linen was stained by the same discharge. This discharge seemed to be more profuse after he had indulged too frequently in venery and alcoholic stimulants. At the time the patient consulted me he was in a fair condition, his general health being good, and, save for the slight annoyance and discomfort attending the complaint, suffered no inconvenience. On examination the meatus seemed to be a little congested, but there was no pain or tenderness at any point along the course of the urethra. Thinking that the chronic discharge might possibly be due to a stricture, a large sized gum bougie was introduced, and passed easily and without obstruction into the bladder. I then prescribed the following mixture:

R.—Oil sandalwood, ʒi.
Tincture of cinnamon, ʒi.

M.—A teaspoonful three times a day.

The patient was enjoined to avoid stimulants, and to keep as quiet as possible. The medicine was taken until the 22d of January, at which time all signs of a discharge seemed to have disappeared. He was then instructed to stop all medication. On January 25 the patient again came to consult me.

He had been on a spree, and his gleet was as bad as ever. I again placed him on the oil of sandalwood, which he took during the whole month of February, the discharge sometimes much less, and sometimes more. On March 1st I placed him on sandalwood capsules, omitting the cinnamon altogether, and in addition passed a bougie smeared with the following mixture :

R—Tannic acid, ʒi.
Olive oil, ʒi.

For three consecutive days the bougie was used without any seeming benefit, and was then discontinued. The capsules were increased to nine a day. On March 10th all discharge had ceased, and on the 14th the patient was discharged. Up to October there had been no relapse.

CASE 2.—*Gleet of Ten Months Standing Treated with Oil of Sandalwood.*

K., native of Ohio, brush-maker. Date of consultation, January 19, 1875 ; patient had contracted a clap in February, 1874 ; a druggist had treated him ; he had used irritant injections, and also prescribed copaiba and cubeb ; in three weeks the clap seemed to have disappeared, and the patient had discontinued treatment ; some days afterwards he noticed his night linen was stained, and came to the conclusion that he had spermatorrhœa ; he then consulted an irregular physician, who, without examining him, placed him under large doses of bromide of potassa, alternating with belladonna. No relief was afforded, and the patient, owing to lack of money, was forced to quit all treatment. In the meantime the discharge continued, and when the patient came to consult me, he was suffering more from mental depression than anything else, having conceived the idea that he was becoming impotent. On examination I found that the meatus presented no signs of congestion. On his shirt, that had been worn for several days, were two or three yellowish stains, about the size of a silver quarter dollar. There was no pain or tenderness along the course of the urethra. The patient was asked to sit astride the round of a chair and elevate his feet, so that the pressure of his weight would fall upon the perenium ; the urethra was then pressed from behind forward, and a drop of yellowish puss appeared at the meatus. I then easily satisfied the patient that he was only suffering from gleet. The following prescription was written :

R—Oil sandalwood, ʒi.
Tincture cinnamon, ʒi.

M.—Two teaspoonfulls three times a day.

On the 1st of February the discharge had much diminished, and I substituted sandalwood capsules. On the 8th of February all traces of the disease had disappeared, and on the 11th of the month the patient was discharged. Three months afterward I met him and received his assurance that there had been no relapse.

CASE 3.—*Gleet of Seven Months Standing Treated with Oil of Sandalwood.*

J., a native of Ohio, wagon-maker. Date of consultation, June 23; some months before the patient contracted a clap, for which he was treated by an "advertising" specialist; after taking medicine for six or eight weeks, he was pronounced cured; in the meantime a slight discharge was still noticeable from time to time, appearing usually in the morning, in the shape of a drop or two of thick, creamy, yellowish pus, which he squeezed out of the meatus shortly before passing his urine; he had been told by a fellow-workman that he had gleet, and was also advised to contract a fresh clap, on the Hahnemanic theory of *similia similibus curantur*; one or two attempts at this kind of treatment had, strange to say, failed. For several months prior to consulting me the patient had taken no medicine of any kind. On examination I found the meatus was slightly congested; no pain on pressure at any point along the course of the urethra. On introducing a large sized gum bougie, it passed into the bladder very easily. At this point a slight digression may be pardoned. It has been my habit to use gum bougies in place of metallic ones, for the reason that the cold metal often seems to provoke a spasmodic contraction of the urethra, thus preventing the passage of the instrument, while in the same case a gum bougie of the same size can often be passed with the greatest facility. The patient was placed on the following:

R \bar{y} —Oil of sandalwood, ʒi.
Tincture of cinnamon, ʒi.

M.—Teaspoonful three times a day.

Absolute abstinence from the use of stimulants and also of tobacco were enjoined.

On July 6th sandalwood capsules were substituted for the mixture. On the 20th of the month the patient had *an outbreak of boils*, appearing for the most part on the back of the neck. Salines were used for several days, and the eruptions disappeared. On August 4th the discharge had entirely ceased. On the 9th the medicine was discontinued, and the patient dis-

charged. Two months later there had been no signs of a relapse.

It will be noticed that the capsules seem often to act much better than the sandalwood used in mixture, for the reason, I think, that the drug used in the manufacture of capsules is much less likely to be adulterated. The sandalwood capsules prescribed by me are those of Dundas, Dicks & Co., because they seem to be the best and purest. On the other hand, the copaiba capsules of Mathey Caylus certainly best meet symptoms, when the use of copaiba is indicated.

Drs. Foster and Haile, of this city, have both used oil of sandalwood largely in cases of obstinate gleet, with such an eminent degree of success, that they have come to regard the remedy as a specific for the disease.

The following cases will show the comparative value of oil of sandalwood and balsam of copaiba, in the treatment of gonorrhea:

CASE 1.—*Gonorrhea Treated with Oil of Sandalwood.*

G. L., steamboatman. Date of consultation, June 23, 1875. Acute gonorrhea, coming on five days after connection; all the usual symptoms present, except chordee. Patient placed on the following treatment:

Three sandalwood capsules three times a day; also,

R—Zinci sulphatis, gr. vi.
Morphiæ sulphatis, gr. i.
Aquæ, ʒiv.

M. Sig.—Use as injection, three times a day, after passing urine.

The disease ran its usual course. Patient discharged March 5th. Duration of treatment, forty-two days.

CASE 2.—*Gonorrhea treated with Oil of Sandal.*

B., commercial traveler. Date of consultation, February 26, 1875; acute gonorrhea coming on three days after connection; all the usual symptoms present during the attack, except chordee. Patient placed on the following:

R—Zinci acetatis, gr. vi.
Morphiæ acetatis, gr. i.
Aquæ, ʒiv.

M. Sig.—Use as directed.

Also, three sandalwood capsules three times a day.

During the course of the disease the patient had an outbreak of boils on the back of the neck. Patient discharged April 2d. Duration of treatment thirty-six days.

CASE 3.—*Gonorrhea Treated with Oil of Sandal.*

G. A., molder. Date of consultation, March 17, 1875. Period of incubation unknown. Acute gonorrhea, with all the usual symptoms, except chordee. Patient placed on the following treatment.

R_y—Zinci Acetatis, gr. vi.
 Morphiae acetatis, gr. i.
 Aquæ Rosæ, ℥vi.

M. sig.—Use as directed.

Also, the following :

R_y—Oil sandalwood,
 Tincture cinnamon, each ℥i.

M.—Teaspoonful four times a day. The mixture was afterward discontinued, and 3 sandalwood capsules three times *per diem* substituted.

Patient discharged April 17th.—Duration of treatment, 32 days.

CASE 4.—*Gonorrhea treated with Copaiba.*

S., clerk. Date of consultation, March 15th, 1875 ; acute gonorrhea coming on 5 days after connection ; all the usual symptoms present, except chordee. Patient placed on the following treatment :

R_y—Zinci sulphatis, gr. vi.
 Morphiae sulphatis, gr. i.
 Aquæ rosæ, ℥vi.

M. sig.—Use as an injection three times a day.

In addition, 3 copaiba capsules three times a day.

Patient discharged April 13th.—Duration of treatment, 30 days.

CASE 5.—*Gonorrhea treated by Copaiba.*

H., merchant. Date of consultation, April 14th, 1875 ; acute gonorrhea coming on 3 days after connection ; all the usual symptoms present during the course of disease, except chordee. Patient placed on the following prescription :

R_y—Zinci acetatis, gr. iv.
 Morphiae sulphatis, gr. i.
 Quiniæ sulphatis, gr. xii.
 Aquæ rosæ, ℥vi.

Misce et fiat sol sig.—Use as an injection four times a day.

The quinine I added, as is my custom, on account of the excessive purulent discharge. In addition, 2 copaiba capsules three times a day.

Patient discharged, May 8th.—Duration of treatment, 25 days.

CASE 6.—*Gonorrhea treated by Copaiba.*

C. M., commercial traveler. Date of consultation, April 15th, 1875; acute gonorrhea coming on 3 days after coition; all the usual symptoms present during the course of the attack, except chordee. Patient placed on the following:

R̄—Zinci sulphatis, gr. vi.
Morphiæ sulphatis, gr. i.
Aquæ rosæ, ℥vi.

M. sig.—Use as an injection three times a day.

In addition 3 copaiba capsules three times a day.

Patient discharged May 6th.—Duration of treatment, 21 days.

CASE 7.—*Gonorrhea treated by Copaiba.*

C. B., student. Date of consultation, April 19th, 1875; period of incubation unknown; acute gonorrhea, all the usual symptoms present, except chordee. Patient placed on the following:

R̄—Zinci sulphatis, gr. vi.
Morphiæ sulphatis, gr. i.
Aquæ destillatæ, ℥iv.

M. sig.—Use as an injection.

In addition, 3 copaiba capsules three times a day.

Patient discharged May 12th.—Duration of treatment, 24 days.

CASE 8.—*Gonorrhea treated with Copaiba.*

Martin T., clerk. Date of consultation May 10, 1875; acute gonorrhea coming on 4 days after connection; all the symptoms of the disease present during the attack, except chordee. Patient placed on the following:

R̄—Zinci acetatis, gr. iv.
Morphiæ acetatis, gr. i.
Aquæ rosæ, ℥viii.

M. sig.—Use as an injection.

In addition, 2 copaiba capsules three times a day.

Patient discharged May 31st.—Duration of treatment, 22 days.

CASE 9.—*Gonorrhea treated with Copaiba.*

F., molder. Date of consultation, June 12, 1875; acute gonorrhea coming on 48 hours after connection; all the usual symptoms present. Patient placed on the following:

R_y—Zinci sulphatis, gr. vi.
Morphiæ sulphatis, gr. i.
Aquæ rosæ, ʒvi.

M. sig.—Use as an injection.

Also, 2 copaiba capsules three times a day.

Patient discharged, July 1st.—Duration of treatment, 20 days.

CASE 10.—*Gonorrhea treated by Copaiba.*

Albert T., commercial traveler. Date of consultation, June 28th, 1875; acute gonorrhea coming on 4 days after coition; patient had been treating himself for a week prior to consultation; he had not used anything but injections, however. The case presented all the usual manifestations, including chordec, due to the irritant injection of nitrate of silver, he had been using. Patient placed on the following:

R_y—Extracti hæmatoxyli, ʒii.
Aquæ, ʒvi.

Sig.—Use an injection.

In addition, 30 drops of balsam of copaiba four times a day. Capsules afterwards substituted.

Patient discharged July 21st.—Duration of treatment, 24 days.

CASE 11.—*Gonorrhea treated with Oil of Sandal.*

R. M. D., commercial traveler. Date of consultation, July 3, 1875; acute gonorrhea coming on in 5 days after connection; disease showed all the usual symptoms during its course, except chordec. Patient placed on the following treatment:

R_y—Zinci sulphatis, gr. vi.
Morphiæ sulphatis, gr. i.
Quiniæ sulphatis, gr. xii.
Aquæ destillatæ, ʒvi.

M. sig.—Use as an injection three times a day.

In addition, the following :

R_y—Oil sandalwood,
Tincture cinnamon, each ʒi.

M. sig.—Teaspoonful 4 times a day.

On July 17th, the mixture was discontinued, and sandalwood capsules substituted.

Patient discharged August 10th.—Duration of treatment 39 days.

CASE 12—*Gonorrhea treated with copaiba.*

J. C., agent. Date of consultation, October 4, 1875; acute gonorrhea coming on 3 days after exposure; disease showed all the usual symptoms, including chordee. Patient placed on the following:

R_y—Zinci sulphatis, gr. vi.
Morphiæ sulphatis, ʒi.
Aquæ rosæ. ʒiv.

M. sig.—Use as an injection.

Also, 3 copaiba capsules three times a day.

Patient discharged October 18th.—Duration of treatment, 15 days.

Other cases might be mentioned, but let the foregoing suffice, as in all the result was about the same. In every case the too long use of the injections used was carefully guarded against, and the patient received the usual directions regarding diet, etc., generally laid down in the text books on this special subject. The reader will at once see that the duration of a case of *gonorrhea* is *quickly shortened* when *copaiba* is used in place of oil of sandal. In case of *gleet*, on the contrary, the oil of sandal *far excels* the balsam of *copaiba*, and all injections may be omitted awhile the sandal is being used.

The following conclusions in regard to the relative value of the two drugs in the treatment of gonorrhea and blennorrhea, are drawn from my experience with these agents:

1st. In cases of acute gonorrhea occurring in strong and healthy persons, without any tendency to kidney trouble or gastric derangement, the use of balsam *copaiba* *will be found to be the most satisfactory*, as compared to sandalwood oil.

2d. In cases of gonorrhea which show a tendency to become chronic, and in which the continuous use of *copaiba* has caused irritation of the kidneys and a gastric derangement, sandalwood oil may be substituted with great advantage.

3d. In cases of obstinate gleet, oil of sandalwood in large and long continued doses will, without the aid of other means, completely cure the malady.

4th. Sandalwood oil is agreeable to the taste, and creates no nausea, nor does it communicate a disagreeable odor to the breath and urine, as in the case of balsam of cobaiba.

Art. 6.—A PLEA FOR HIGHER MEDICAL CULTURE.

By C. H. NEWCOMB, M. A., M. D., Mechanicsburg, Ohio.

As our general prosperity and real advancement as a nation is healthy, the times seem most opportune for the agitation of plans for the improving and perfecting the courses of study in our universities and colleges, and in offering greater facilities to those who wish to pursue their studies indefinitely. That our representative medical colleges stand to-day far in advance of former times, there is no doubt. But, that our very first medical colleges, which have even the most valuable improvements, and offer the greatest facilities in all their departments, still come very far short of the high standard demanded over the land, by those seeking a medical education, is even more apparent from the palpable fact that every year more and more young men go to Europe to avail themselves of the facilities that are not yet offered in our own medical colleges. And this very fact, that a greater number of our young men every year go to Europe "to complete," as it were, their medical education, is sufficient proof that the demand for the opportunities to acquire higher medical culture than it is possible to obtain here, is not only rapidly on the increase, but the demand outruns the supply.

And what the medical profession in our own country most needs to-day, is the opportunity for pursuing their studies indefinitely here at home.

There ever has been, and there probably always will be a certain class who will be perfectly willing to assume the responsibilities of the physician with the very least (or no) knowledge of the science and practice of medicine whatever. And while there are pathies of the science and practice of medicine (as there should not be any more than of the science and practice of law), such can only be reached by and through

legislative enactments—the most stringent. Of this class, it is not proposed to treat in this article. But there is another class who, of themselves, are not only willing and anxious for, but are demanding of our medical colleges much greater facilities than they now afford. And, as a matter of course, the college and colleges, that will afford the facilities that are now demanded by so great a number of medical students all over our land, will be most prospered and honored.

It is not intended in the present article to go into details, or to present a systematic plan of reform. For in a matter that requires so much sound judgment and experience, suggestions only by way of illustration (or rather for the purpose of simply presenting the subject) can be brought forward. And it should be borne in mind that nothing can be done in this matter simply through spasmodic efforts.

First in order of consideration is, the plan now pursued for the instruction of the under-graduate; or if you prefer, the requirements demanded of the under-graduate. True it is that the proficiency that should be expected of every candidate for the Degree of Doctor in Medicine should be, evidently, of a very high character. That the present plan of instruction is the best for reaching this degree of proficiency, is very seriously doubted. And the plan and conduct by, and through which this proficiency may be reached, is earnestly presented to (for it is well worth the most earnest consideration) of the professors and tutors in our medical colleges for their thoughtful contemplation. We most heartily sympathize with those teachers who are doing what they can to bring about a reform, for the difficulties they meet on every hand in so doing are not few or small.

Each year a very mixed material presents itself to our Medical Colleges for instruction. And this very mixed material is not only permitted, but compelled, to mix itself up promiscuously each term, without any reference to individual qualifications, or any methodical arrangement whatever.

To particularize a little—it is expected of each candidate that he shall have read some standard work on anatomy, physiology, materia medica and therapeutics, principles and practice of medicine, surgery, and obstetrics, on presenting himself for matriculation, after which he is required to attend two courses of lectures on the subjects treated of in the above works. Then at matriculation every matriculant is placed on the same level (the very same requirements being demanded alike of all, both as to time and course of lectures) whether he lacks the very ordinary education afforded by our country schools—and such do present themselves for matriculation—or where he

has already earned the degree of "B. A." That is—this same person, who has made study a life-work, is compelled to listen to a lecture that he has not only already heard, and that, too, from the very same person, but has carefully studied. Also, he is compelled to listen to lectures on subjects in which he has passed as rigid an examination as is required in our Medical Colleges, and that too, a second time. Hence, it is seriously doubted whether the requirements are sufficient for him who has but an ordinary education, *if* it is necessary for him who has a liberal education to listen to lectures that he has not only studied carefully, but has heard before. Besides, also, it may be seriously questioned as to the propriety of requiring of any young man of fair intellect and education to attend lectures that he has already heard and read. It is not that there should be any subtraction from the requirements already demanded of the under-graduate, either in time or studies; but rather there should be an addition, both in time and studies.

And if the time is already too limited to do justice to the work, and to arrive at that degree of proficiency that is even now demanded and expected, how much more is it necessary for an economizing of the time now allotted the under-graduate, and of a more systematic arrangement of the curriculum. The simple truth is, if the present system of instructing the under-graduate in our American Medical Colleges is not a cramming process, it is, at the very least, an inflating process. Besides, that the requiring of students to listen to a lecture a second time, unconditionally, encourages and invites positive laxity, there is no doubt. But such arguments are entirely unnecessary for our present consideration or purpose.

The second and especial point that I wish to notice, is the now very great and rapidly increasing demand of American medical students for the opportunity of pursuing their studies indefinitely at home. There are now over fourteen hundred American students in Europe, principally in Germany. A large proportion of these are medical students. As we have men here in America of undoubted ability as specialists, there should no longer be any necessity or occasion for our young men going to Europe for higher medical culture. Whether it should be a post-graduate course of study, or a more indefinite plan even than that should be offered, I submit for others, more capable than I, to answer.

I notice, however, through the pages of your journal—and it is not a bad sign of the times either—that at least one specialist, in your own city, has started in the right direction.

Translations.

Jaborandi.

Dr. M. A. Robin, arrives at the following conclusions regarding *Jaborandi*:

1st. *Jaborandi* is useful in primitive saturnine colic, of which it calms the pains when other modes of treatment fail, (opium, chloroform, electricity, etc.)

2d. It will serve to attenuate some of the symptoms which accompany intoxication; such as anorexia, insomnia, etc.

3d. It will aid electricity in the treatment of anæsthesia and paralysis, and sulphur baths for drawing out the fixed lead salts to the surface of the skin; whenever these salts may have had for their origin the dust of manufactories, or, when they result from elimination by the cutaneous epithelium of a portion of fixed lead in the organism.

4th. By reason of its asthenic effects, the pilocarpus is contraindicated in advanced saturnine cachexia or the morbid symptoms pertaining much more to hyper globulin than to the impregnation of tissues by lead.

Bromohydrate of Quinine.

Prof. Gubler notes the action of this new febrifuge:

1st. The bromohydrate of quinine corresponds to the sulphate of the same base, is more soluble, and richer in alkaloids than the latter.

2d. It possesses the physiological properties of the salts of quinine in general, and, probably, also therapeutic virtues of its officinal species.

3d. Meanwhile, the action of the bromohydrate seems to differ from the sulphate of quinine, not only by the moderation of the symptoms of quinquinic intoxication, but also by a marked tendency towards nervous sedation and hypnotism.

4th. This collection of qualities indicate its use, especially in the treatment of congestions and febrile affections which attack the nervous system—neuralgias, neuroses, irritative neuroses, encephalic hyperæmia, etc., against which it has already given me excellent results.

5th. The bromohydrate of quinine has manifested remarkable power in a case of obstinate vomiting. It has rendered me numerous services in a series of morbid cases, ordinarily amenable to sulphate of quinine, visceral or articular fluxions of diphtheric or non-diphtheric origin; rheumatism, gout, symptomatic fevers, etc.

6th. This new medicine has been given in doses of 0.40 centigrammes to 1 gramme per day. 0.20 centigrammes of a particular preparation sometimes in hypodermic injection.

7th. Carried under the cellular tissue, the bromohydrate of quinine shows itself absolutely inoffensive.

8th. Its perfect innocuity, added to a greater solubility, constitutes an incontestible superiority in favor of the new combination of quinine, and recommends it particularly to practitioners, every time there shall be indications or necessity to administer quinine by the hypodermic method.—[*Journal de Therapeutique*, 1875.

T. C. M.

Proceedings of Societies.

CINCINNATI MEDICAL SOCIETY.

Reported by B. STANTON, M. D., Sec'y.

The society met November 23d, Dr. Comegys, in the chair.

Dr. McKenzie presented a pathological specimen, the brain removed from a patient, who died in the Cincinnati Hospital, and gave the following history.

Patient was brought to the hospital, one week ago, in an ambulance; by the assistance of two persons, he walked some distance. He seemed to know when he was spoken to, but did not seem to comprehend what was said. Dr. Comegys, one of the resident physicians, saw him first, and says that he put his right hand to his head. After being taken to the ward he was examined by two other resident physicians, Drs. Collins and Watson, who found complete paralysis of right side. He died during the following night, and an autopsy was made the next day by Dr. M——, who found, when the calvarium was removed, the dura mater distended with blood; when that membrane was cut about two ounces of blood escaped from between it and the arachnoid. Upon the removal of the dura mater, he found on the right side of the brain a small elevation upon the arachnoid, which, however, seemed to come from the membranes beneath. Under this elevation was found a small clot of blood. This he regarded as an aneurism. The ventricles did not contain an undue amount of fluid.

The compression was caused by the blood between the arachnoid and dura mater.

The point of interest is the fact that the paralysis and cerebral lesion are both on the same side. The anterior columns were examined and he found no abnormal distribution of nerve fibers.

Dr. Carson said the patient was admitted in the afternoon, and died before his visit the next morning, so that he did not see him during life. He had very little doubt but that the observations

of the internes were correct, all being careful observers. The paralysis probably came on after the examination by Dr. Comegys, and before the examination by Drs. Collins and Watson. The paralysis might exist on the same side as the cerebral lesion. This does sometimes occur, however difficult it may be to explain it. There may have been some pathological condition to account for it.

This patient had been found at the Suspension Bridge in a state of supposed intoxication. He was taken to the station-house, thence in a short time to the hospital. There is sometimes difficulty in diagnosing between intoxication and injuries of the brain. There were no evidences of a blow on the scalp. From observations taken after his admission, his temperature was found to be $102\frac{1}{2}^{\circ}$. That would seem to contradict the supposition of intoxication. The amount of alcohol that would have caused this amount of stupor would have reduced his temperature. In one case the temperature is said to have been reduced to 87° by alcoholic spirits. Facts of this kind may help us to decide in doubtful cases.

In cerebral hemorrhage the first effect is to depress the temperature, but in a few hours there is a reaction, the temperature going up several degrees above normal.

His belief was that in this case there was paralysis of the right side.

Dr. Murphy said this case brought to his mind two cases which had recently been under his care. One in the Cincinnati Hospital on Friday, the 12th inst. The patient had been brought from the station-house, supposed to be laboring under delirium tremens. The case was at first so diagnosed at the hospital, and he had been treated during the night on that theory. The temperature was not much elevated, pulse slightly increased, but he was delirious, and had to be tied in bed. When *Dr. Murphy* first saw him he was in a doze, but awoke when touched; temperature about 100° , pulse 100. He was muttering; was not conscious; was covered with a clammy perspiration. He at once said there was very great doubt about it being a case of delirium tremens. The next day his temperature was 103° , pulse was 130, pupils unaffected by light. The third day after admission he died of meningeal inflammation.

In another case which he had recently seen—that of a young lady 18 years of age, well developed and of good constitution, who had been disappointed in love; she had not menstruated since July; one week before he saw her she had an attack, which resembled hysteria—there was no exaltation of temperature, no increase of pulse; complained of some pain in the head. When *Dr. M*—first saw her the left pupil was largely dilated, and did not respond to light, the right pupil normal; she seemed conscious, but was fretful and feverish; she had been seen by two other physicians, one of whom had diagnosed the case as one of hysteria; the other had not ventured on a diagnosis. Although there was no fever and no increase of temperature, *Dr. M*—suspected brain lesion. On

Tuesday, 16th inst., she began to have fever. 'This continued to come on at 10 o'clock each day until Friday, 19th, when she died comatose.

The important point in these cases is the difficulty sometimes found in making a diagnosis. In the last case the girl had been free from fever for a week, then it was suddenly developed.

Dr. W. T. Brown said that it had been stated that he had seen the first case mentioned by *Dr. Murphy*. He had never seen the case, but *Dr. A. M. Brown* had, and at once diagnosed it a case of meningeal inflammation, and had advised that the patient be sent to the hospital, instead of which he was taken to the station-house.

Dr. Carson said the question of temperature is an important one in these cases. It sometimes happens that there is no increase of temperature; such had been the case in a patient seen by him two years ago in Covington, Ky., where the question of brain lesion or hysteria presented. He had diagnosed the case one of meningitis. Her friends started to take her home, some distance up the river, but she died on the boat. Up to the time she left Covington, there had been no increase of temperature.

The society met November 30th, the President, *Dr. Comegys*, in the chair.

In the absence of *Dr. Goode*, a former patient of his was presented by *Dr. Stanton*, who had seen the case in consultation.

Two and a half years ago the patient, who was then 11 years old, received a pistol-shot wound of the brain—the ball entering the cranial cavity, one inch above the right supra-orbital ridge. That it was a penetrating wound, was proved by the escape of brain substance.

Very little disturbance followed the receipt of the injury. There was very little shock; but little comminution of bone, the fall making a smooth round opening. There was some hemorrhage, which, however, soon stopped. Some inflammatory fever followed on the second day, and on the eighth day his attendants were surprised by the sudden bursting of an abscess through the opening in the skull, and the escape of two or three ounces of pus, which was projected in a small stream some distance from the bed. The patient was restless and more feverish, and complained of some pain in his head for a day or two preceding the opening of this abscess.

About three weeks after the injury a small piece of bone and a thin scale from the bullet were removed from the opening. Patient readily recovered without any other untoward symptom.

He was not unconscious, nor was his mind perceptibly affected at any time. There were no convulsions or paralysis at the time of the injury or since. His intellect has not been at all weakened: special senses unaffected.

Where the ball lodged has not been ascertained.

Dr. Bender said that during the Franco-Prussian war he saw a patient who had been shot in the brain, the ball entering the left

temple. He had been taken home, but in three or four weeks he was taken to the hospital at Coblenz, to be treated for convulsions which he had had since the injury. There was evidence of some compression. Two days after his admission to hospital he was trephined, a section of bone, one inch in diameter, being removed. Convulsions continued for a day or two after the operation. There was no paralysis, except that for three days there was paralysis of sphincter ani. Pulse never above 95, temperature not much elevated. Granulations of a large size sprung up in the wound. After a few days an abscess opened in the wound, and some pus was discharged. A probe was passed two inches into the brain to give exit to pus. Compression was made on the granulations and they gradually disappeared. Patient gradually recovered.

Dr. Stanton mentioned, as an example of the small amount of shock which sometimes attends serious injuries of the brain, a case which he had seen at the battle of Thompson's Hill, Mississippi. A soldier was wounded by a grape shot entering the brain through the parietal bone, a little to one side of the sigittal suture. He was taken to a field hospital, some distance in the rear, had the ball removed by trephining, and in a day or two rode fifteen miles to a general hospital. He did well for several days, then died from an inflammation of the meninges, suddenly developed, by turpentine being used to kill maggots in the wound. He was not unconscious at any time until a few hours before his death; he conversed freely before and after the removal of the ball, and during the operation for its removal. At no time were marked symptoms of shock manifested.

Dr. Taylor reported a case which he had recently seen in consultation, which presented some anomalous features—a child $2\frac{1}{2}$ years old, in perfect health, until the present attack. It had developed properly and rapidly. For two weeks past it has been irritable, and less tractable than ever before. Last Thursday, when placed at the table, its mother noticed that it did not put its spoon in its dish; on examination she found that it was blind. Thursday, Friday, and Saturday it was restless, but slept some. The physician who saw it said that, with the exception of the blindness, all the symptoms were negative. There was no vomiting, no elevation of temperature, no paralysis. Its eyes were closed, the pupils fixed, dilated. It continued in this condition, except that on Monday it vomited once. It is able to walk; has recognized its parents by the voice. It is gradually becoming more drowsy, has had carpo-pedal spasms occasionally, has spasmodic movements of the extremities. The temperature when last seen 98° , pulse 100, soft, regular, breathing regular, but rather labored, 24 per minute. Bowels regular, secretions all natural. There has been no paralysis at any time; it is entirely conscious; has no involuntary discharges; is apparently in perfect health. There is no manifestation of suffering, except the contracted brow so commonly seen in cerebral disease. On neither side is there any

tubercular tendency. There have been no early deaths in the family, except one from cholera infantum; none of the children have had convulsions. Parents and three of its grand-parents still living and in good health. There is no history of any injury except that three months ago the child fell from a chair, striking upon its forehead. The child is not pale, neither has it alterations of color. "Trousseau's line" not perceived. No ophthalmoscopic examination has been made. Dr. Taylor's impression was that it was a case of meningitis, involving but a small part of the membranes, probably the velum interpositum.

Dr. Richardson reported a case which, in some respects, resembled the one reported by Dr. Taylor, an infant four months old; had been sick a number of weeks, when the Doctor first saw it; it appeared to be suffering from bronchial congestion; was unusually pallid. The bronchial difficulty with harassing cough were the principal features of the case. The pulse was frequent and small; no undue heat of surface. Bowels were regular; this condition continued for at least three weeks. A few days ago the frequency of the pulse abated, was rather below normal, but of a good volume. The child took more notice of persons, and smiled for the first time since its sickness began. The muscles were all at rest. This apparent improvement did not last long. It became more dull, slept most of the time. Yesterday the pulse again became more frequent to-day; opisthotonos with slight lateral inclination of the head presented. There is slight strabismus, no suffusion of the conjunctiva. This case presented many of the prominent symptoms of "cerebro-spinal meningitis." He objected to the term "meningitis," which has been applied to this disease, some of the prominent symptoms of inflammation, as increase of temperature, &c., being wanting, although the results of inflammatory action are sometimes found post mortem.

In these cases the spinal senses may be temporarily affected. In a case which he had treated two years ago there was temporary deafness. That condition has returned twice since, but the patient now seems well.

In the case of the infant, he thought the bronchial trouble dependent on some influence of the pneumogastric nerve.

The possibility of whooping cough occurred, but there was absence of spasm indicative of the disease.

Dr. Comegys said in this case the differentiation of the visual sense as the point of lesion is exact; there seems to have been no other affection at the beginning, no mental disturbance, no muscular paresis or want of co-ordination, and no abnormal condition of sensation. The respiration was regular, and there was no preternatural heat. The basilar and cortical portions of the brain were intact.

There is one symptom of note, and that is the dilatation of the pupil, which may be accounted for as an irritation of the sympathetic nerve of the iris, for if it were due to paresis of the third nerve, there would be ptosis and strabismus also.

It is impossible to consider embolism or thrombosis when the age and state of previous health are regarded. As there were not for some time any symptoms of meningitis (inflammation), he thought the primary conditions were due to œdema of the tubercula quadrigemina, and that the pathological state is extending to the great motor centers, evidenced by the tonic spasm of thumb, beginning, after several days, to supervene.

Dr. Carson suggested that the trouble might arise from reflex action from some disturbance in the alimentary canal.

Dr. Taylor was not strongly convinced of the correctness of his views in regard to the pathological condition, but he thought he was right. As the bowels had been moved by a cathartic, it was not probable that there was any source of irritation in the alimentary canal. The child had gone through dentition with but little disturbance. There has never been any aural trouble. As to the exceptions taken by *Dr. Richardson* to the term meningitis, *Trousseau* says there are cases of meningitis which run through the entire course without any increase of temperature. In this case there was not the irregularity of pulse or breathing which were to be expected in the later stage of the disease. Another negative feature is that it has made no manifestation of pain in the head.

Dr. Richardson thought the state of pulse, absence of signs of effusion, of elevation of temperature, of strabismus, of sighing respiration, etc., are inconsistent with the idea of meningitis.

The society met December 7, 1875, the President, *Dr. Comegys*, in the chair.

Dr. Walker thought that during epidemics of small-pox revaccinations were generally more successful, the system being more susceptible to the vaccine virus at such times. He thought vaccination as true a protection against small pox as small-pox itself. Varioloid may follow either disease. He did not consider a vaccine scar a *sure* indication that the person was protected from small-pox.

Dr. Wood thought there was no reliance to be placed on the scar. He had seen severe cases within a few weeks which present all the characteristics of variola, where there were good vaccine scars.

Dr. Culbertson agreed with *Dr. Wood*. He vaccinated a lady who had three good marks on her arm, the result of three vaccinations at different periods of her life. The fourth vaccination ran as distinct a course as a primary vaccination.

Dr. Kearney.—In two cases of small-pox one may be badly marked, the other very slightly. There is no constant typical small-pox pit. So in the analogous disease why may we not have the same thing?

In answer to a question by *Dr. Comegys*, several present expressed a preference for the scarificator to the vaccinator.

Dr. W. B. Davis said the great authorities were against vaccinators. He was well convinced that the method of scarification was the better one.

In his primary vaccinations he makes three scarifications. He thought American physicians generally do not insert enough virus.

He was called some time ago to see a case of variola dis oreta; he found in the same room a child which had never been vaccinated. Three insertions were made in the left arm. Three days later he saw the child, and, finding no indications that the vaccination had taken, he made three more insertions in the right arm; on the fifth day he found the first vaccination had taken nicely; the second vaccination was hastened in its course by the first and matured with it. Another case similar in character was reported. He thought it the duty of the physician to see the person vaccinated by the fourth day, and, if only one place has taken, to insert more virus, thus giving the person the benefit of a good vaccination. If the first vaccination is imperfect it may prevent one from ever taking a vaccination perfectly.

Dr. Bramble said he vaccinated in three places. He had recently vaccinated six children; saw all on the eighth day. In three of the children only one place had taken. He revaccinated them, but in no case did he succeed in getting more than one vesicle developed.

Dr. Davis thought the revaccination was deferred too long. If they had been revaccinated about the third or fourth day, it might have taken, and more vessicles have been developed.

In reference to supplementary vaccine pustules at distant parts, it is rare but cases are recorded. In one case which he vaccinated, in addition to the vesicle on the arm, he found one on the index finger, which developed and ran the same course as the other vesicles.

Dr. Conegys said he was in the habit of using Gordons vaccinator. His experience had been that it was as reliable as the scarificator; he generally made two insertions.

Dr. Miles said he had attended at least twenty cases of small-pox in the last two months. In every family where the disease has occurred he has vaccinated with the vaccinator, and no one thus vaccinated has taken small-pox; he therefore thought them as fully protected as though more matter had been inserted. If the symptoms of vaccina are present with only one pustule, the person is as fully protected as though there were more.

Dr. Hough thought it made no difference how the matter was inserted, and he did not believe the number or size of the pustule had anything to do with the amount of protection.

Dr. Culbertson said that in 1869 he attended cases of small-pox in two different tenement houses. In each he vaccinated an infant with good virus, but in neither case could he get any result. The children did not contract small-pox, although living in the same room with the patient all the time.

Dr. Taylor gave some further account of the case reported by him at the last meeting, on Tuesday evening, the date of his first report; there began to be a rise of temperature, it being a little

above normal. It continued to rise until Thursday, when the child died. Its temperature one hour before death was 105°. There was increased somnolence, yet never sufficiently profound to be called coma. It died from exhaustion. A post-mortem was made by Dr. Mackenzie, which was negative. There was no exudation, no effusion, no purulent deposit, no tubercles; there was some congestion of pia mater, but not to a great degree. The blood did not present the characteristics of blood poisoning. No ophthalmoscopic examination was made. He went out to make it but was too late.

Dr. T. said there seemed to be at present a tendency to cerebral disturbance.

The society met December 14, 1875, the President, Dr. Comegys, in the chair.

Dr. W. B. Davis read a paper on "Revaccinations during the present small-pox epidemic."

Dr. Walker said the paper went to prove the correctness of the former history of revaccinations. He was a little surprised that *Dr. Davis* had not found his revaccinations more frequently successful. In the Prussian army 40,000 soldiers were revaccinated. Two-fifths of these were successful, vaccine vesicles being perfectly formed. His own experience showed him that revaccinations are more frequently successful during epidemics of small pox. In the epidemic of 1869 he became more fully than ever convinced of the importance of revaccinations. He makes it a rule to revaccinate all of his families during epidemics, and he has never had a case of varioloid in a family he has vaccinated.

One lady who had been vaccinated twenty times without success was recently vaccinated successfully. The successful vaccination was made shortly after the menopause. To the change effected in her system at that time, and to the epidemic influence, he thought could be attributed the success of the last trial. Not the small number of vaccinated persons who have varioloid, but the great number of such persons who are exposed and escape altogether, is the true test of efficacy of vaccinations. In this city in 1869, when the disease was epidemic, over 200,000 were exposed to the epidemic influence and escaped, while only about 3,000 were affected. Varioloid more frequently follows vaccination than small-pox, but it is more frequently fatal when it follows the latter disease than when it follows the former. He prefers the humanized lymph to the animal virus, and thinks one vesicle protects as fully as more.

Dr. W. B. Davis was firmly of the opinion that one vesicle was not enough, three or perhaps six would be better; one would not protect for as long a time as more. As long as there was a difference of opinion on this point he thought it better to give the person vaccinated the benefit of the doubt. He thought the "vaccinators" very deceptive instruments.

The society met Dec. 21, 1875, Dr. Comegys in the chair.

A communication was received from Dr. Quinn, Health Officer, stating that he thought about one-half of the vaccinations with the animal virus received from Fon du Lac took; the other half were unsuccessful. He further stated that the number of cases of small-pox reported from January 1st to 1 P. M. of the 21st inst., was 2,472. Deaths from small-pox during the same period, 587. The ratio of deaths to cases was $23\frac{3}{4}$ per cent. During a corresponding period of the epidemic of 1871 there were 800 deaths. The number of cases of small-pox reported from December 12th to December 21st, 315. Deaths during the same period, 86.

Dr. Murphy said that about two months ago he delivered a woman of a child. She had had an abortion a little over a year ago; became pregnant soon after. For ten weeks before delivery she had been confined to her bed in consequence of severe rheumatic pains. In the sixth month she began to complain of pain along the inside of both thighs. Later she complained of pain about the symphysis pubis, which became so severe that she was unable to turn over in bed without assistance. She had had no trouble in previous pregnancies except that she had had some rheumatism. Dr. M. thought this a case of separation of the symphysis pubis. On the date of Dr. M's report she had been out of the house for the first time for about four months. She can now go up and down stairs, but with some difficulty. After standing still for a while and then turning around she feels a grating movement at the symphysis pubis. There was no difficulty attending her delivery.

Dr. Murphy also reported the following case :

A man 72 years old, married, laborer, for two years past has been a fireman at the Gas-works. About two weeks ago Dr. M. was called to see him on account of an attack of pharyngitis. There was no fever, his tongue was covered with a yellowish brown fur, pulse was slow, pupils not contracted or dilated, there was some puffiness of upper eyelids. A simple expectorant was given. Two days later Dr. M. saw him again. He was sleepy all the time, his pupils contracted. A purgative was given, but the sleepiness continued. He had to be spoken to loudly to arouse him. His pulse was now 78, temperature not above normal. After a week the tumidity of the upper eyelid disappeared, but the drowsiness continued. There was a urinous odor about him. He gradually became more soporose, and died on the 20th inst. The urine was largely loaded with albumen and had hyaline casts.

Dr. Taylor said it had always been a disputed point whether separation of the symphysis pubis occurs in normal labor. He thought it could not occur, but in the case reported there may have been a synovitis which gave rise to the pain and grating sensation, which the woman said she felt.

Dr. Richardson though it not likely that a decided separation had occurred, as recovery would not have taken place so soon, and it would have been aggravated by the last confinement.

Dr. Kemper said he had never seen a case of separation of symphysis pubis, and in his mind the subject was in a state of doubt.

CLARK COUNTY MEDICAL SOCIETY.

NOVEMBER MEETING.

Reported by DR. ISAAC KAY.

The Clark County Medical Society met in regular session on Thursday afternoon, Nov. 11th, Dr. Seys Vice-President, in the chair.

Dr. W. E. Totten addressed the society upon the subject of Throat Diseases. One of the most prominent of these diseases is Diphtheria. We can recognize this disease as described by ancient medical writers under a different name. The pathological condition is that of a specific inflammation resulting in a grayish exudation upon the fauces and surfaces of the tonsils. There is contemporary general fever, with headache, and sometimes delirium, pain upon swallowing, tongue covered with a coating, pulse rapid, and swelling of the nasal membrane. The symptoms of obstructed respiration become quite severe. This obstruction is sometimes removed by a detachment and throwing off of the pseudo membrane by a violent fit of coughing. The prognosis is generally unfavorable, and when the case is not fatal convalescence is slow. The epidemic form is usually much more fatal than the sporadic form. The essential morbid condition consists in a diseased state of the blood cells; and throat complication is but a local manifestation of a general disease. Some authorities believe that diphtheria is due to a parasitic origin, but this theory is not as yet established. *Dr. T.* then discussed the germ theory in regard to diphtheria. The doctor spoke of the treatment under the heads, 1st of Local, 2nd of General, and 3d of treatment pertaining to the sequelæ.

Dr. Senseman made some remarks upon the diagnosis of diphtheria, especially as distinguished from croup. In diphtheria there is a peculiar sense of soreness and pain in the muscles of the limbs, which we never have in croup. These and other general symptoms greatly militate against the theory of the identity of these two diseases.

Dr. Kennedy said further in support of the theory of diversity in essential character between diphtheria and croup, that the former is not so much restricted to the young subject as the latter.

Dr. McLaughlin regarded the pseudo membrane connected with diphtheria to be different from that which appears in croup. The diphtheritic exudation may appear in the nares, and in various other portions of the body in which particulars it differs from croupal pseudo membrane. Croup is a local disease, whilst diphtheria is essentially a general disease.

Dr. Rodgers was much impressed with the strong similarity between the two diseases referred to this afternoon. The microscope shows no difference in the structure of croupal and diphtheritic pseudo membrane. Notwithstanding these marked points of resemblance, *Dr. R.* held that the diseases were radically different, pathologically, and that this difference should be kept in view in the treatment. Diphtheria is contagious; croup is not. The marked prostration in diphtheria is characteristic of the former, and not of the latter. *Dr. Rodgers* discussed the propriety of various plans of treatment, including that of tracheotomy.

Dr. Kay made some remarks upon throat ulcerations resulting from scarlatina. He proceeded to give his treatment for this class of cases.

Dr. Carroll gave a detailed account of his treatment of various throat diseases. He regarded diphtheria as a blood disease.

Dr. D'Rishey thought that if carefully examined with a microscope, a difference would be observed between the membranous deposits of croup and that of diphtheria. The presence of bacteria was not diagnostic, as they were found in all albuminous deposits undergoing decomposition. He was at one time almost certain that croup and diphtheria were one and the same disease, but had abandoned that idea for reasons similar to those mentioned to-day by a gentleman on this floor. He used local treatment consisting in the application of a solution of sulphate of quinine with an internal administration of the same, as the medicine possesses the power of preventing the passage of the white blood corpuscles from permeating the coats of the blood vessels.

Dr. Scys mentioned several points which had not been already mentioned, in the discussion about the identity of the two diseases. In opposition to a few high authorities who held that croup and diphtheria were only different modifications or manifestations of the same disease, he regarded them as decidedly and essentially different diseases, differing in their pathological conditions as well as many of their important symptoms. In addition to what had just been said upon this point, he remarked that croup was usually connected with spasmodic difficulties never noticeable in diphtheria.

Dr. Reeves thought substantially the epizootic disease and diphtheria were similar. He believed, that in many instances diphtheria as well as other like affections were caused by eating meat of unhealthy animals. If physicians were to study diseases anatomically and pathologically they would advance more rapidly in the acquisition of reliable medical knowledge. This way of studying the subject would lead them to err less in their diagnosis. There would be less mistakes made in the treatment of disease. The pseudo membranes always attach themselves to the mucus membranes. The most common croup will sometimes develop or degenerate itself into these false membranes. In both these diseases the membranes must always be carefully watched during the case under treatment. He believed in the prompt employment of local

treatment under certain circumstances. These circumstances of course would consist of the presence of ulcerations and accessible exudations.

The Society, at a late hour in the afternoon, adjourned to meet again on the second Thursday in December, at which time it is expected that Dr. Harris, of Yellow Springs, will conclude his essay on Heart Disease, a part of which was read at a previous meeting.

Correspondence.

CINCINNATI, *January, 1876.*

TO THE EDITOR OF THE LANCET AND OBSERVER:—Dear Sir: In all the circulars sent you by the various medical colleges, the clinical advantages offered by this city, to students, are praised as superior to any in the west, and not surpassed by the cities of the east.

Still, Sir, I beg to say, that, though this may be partly true, it is not wholly so, for we find that the hospitals of the east, recognize the advantages of the presence of specialists, in their city, put them on the staff and give the students the benefit of the special training, and the numerous observations of these gentlemen.

I am particularly interested in having our city equal the eastern in the advantages for a thorough medical education, and therefore would call the attention of those, also interested in this matter to it.

Among the recent specialties in which great progress has been made, is that for diseases of the "Throat and Air-passages;" in fact in all the European Hospitals a special division has been created, as also in late years in the cities of New York and Philadelphia for this specialty.

It certainly is a great advantage to the students, particularly to those, who expect to engage in country practice, and must be able to treat everything, to have a clinical course at the hospital upon this subject, to be better able to examine and treat rationally those cases which in cities can be sent to a specialist, but in the country must be treated by the general practitioner.

I should therefore suggest, that such a specialist be attached to the staff.

I am, Sir, Yours Very Respectfully,

* * * *

EDITORS LANCET AND OBSERVER:—In the January number of your Journal, appears an article from the pen of James Ford, M. D., in which he ascribes the "Change in the Type of Fevers,

and other Pathological Condition," to the use of Alkalies in the bread we eat.

He mentions the bicarbonates of soda and ammonia, bicarbonate of potassa, salaratus, bitartrate of potassa and sulphate of alumina; and then says, "here then we have five alkaline substances entering into our daily food, &c. Let us investigate, according to chemistry, the first three *are* alkalies, the fourth is an acid, diametrically the opposite of an alkali, and which is capable of destroying the properties of an alkali, as such; the fifth, sulphate of alumina, is a neutral compound, but is not alum as he defines it, but is *almonite*, a substance formerly used as an external application to ulcers, or sometimes used to inject subjects for dissection on account of its property of opposing animal putrefaction.

Alum is the sulphate of alumina and potassa, now we have only three, or at most four alkalies left, and we want to ascertain how much of these we eat in bread.

Now, it is a well known fact to every good housewife in the land, whether she understand the chemistry of it or not, that she can not raise her biscuit by putting in little or much soda, salaratus, ammonia or alum, unless she uses some milk, cream tartar, tartaric acid, vinegar, or some other acid to neutralize the alkali and set up an effervescence which "puffs up" the dough when heat is applied.

Baking powder is composed of alkali and acid, mechanically combined in equivalent proportions in the dry state, which the catalytic presence of water and heat causes to combine chemically, an effervescence takes place, and the gas generated by the combination raises the bread while the result of the union is—neither alkali or acid, a neutral.

Now, as you have destroyed the qualities of your alkali, by its mortal enemy acid, how is it going to steal into the blood and produce such dreadful havoc? Why not give the acids, which you enumerate in your table of eight families, an equal share of the blame.

Yours,

J. A. KIMMEL, M. D.

FINDLAY, O., January 17th, 1876.

Editorial.

A statement was recently made in a popular magazine that the study of medicine had a tendency to make men skeptical in their religious belief. The assertion was not only unwarranted and uncalled for, but had no foundation of truth in it. Any one who desires to investigate the subject, by a reference

to individual acquaintances, must very soon conclude that, in proportion to their numbers, the medical profession contains a large proportion of active, earnest Christian men. Active practitioners are constantly brought in contact with the sick and dying, and necessarily often have their thoughts directed to the longings of the soul for a home of eternal happiness, with frequent reference to a Redeemer, through whose death and resurrection many believe they will enjoy immortal life. Such scenes and expressions can not but have their effect upon the minds of physicians.

In watching the influence of the human mind over the body, observing cause and effect, and as students of practical anatomy and physiology, are we not ready to exclaim "Man is fearfully and wonderfully made," whose Creator can be none other than "Our Father who art in Heaven?"

Physicians are to-day, throughout the whole civilized world, perpetuating an important part of the work of Jesus Christ, by giving their very best services to the work of healing the sick, restoring sight to the blind, hearing to the deaf, causing the maimed to walk, and in relieving the wants of the afflicted poor.

There is scarcely a hospital or asylum for the relief of the indigent that was not first suggested, and, to some extent, established, through the labors of physicians. In all our large cities these charities receive the constant attendance of the medical profession, without fee or direct reward. These institutions are not only a pride and glory of the medical profession, but of the whole people; not only that, they are also a direct outgrowth of the teachings of the Christian religion. These institutions never would or could have been established and been sustained by the people, had there been a general tendency in the study of medicine to make men skeptics.

A very large proportion, in fact a majority, of the men who are devoting themselves to scientific pursuits and investigations are physicians; but we regret to see that some very excellent people are living in dread and alarm, lest some scientific discovery should be announced that would overturn some Bible truth. Their anxieties are as groundless as were the fears of those who persecuted Galileo.

It is scarcely thirty years since Morton very nearly suffered at the hands of a mob for producing anæsthesia by the use of ether. That mob was actuated by a belief that he was violating one of God's laws. Would any clergyman or well-informed Christian man assent to such a belief at this time? Very recently a worthy clergyman said to the writer that he believed it to be wrong to license houses of prostitution, and compel the inmates to undergo periodical inspections for the prevention of the spread of venereal disease, because that was one of the punishments God inflicted on men and women for violating his laws. That punishment might be all right and proper in a few instances, but very often the innocent suffer alike with the guilty. As an illustration: A physician, who was a professing Christian man, and who had spent several years as a missionary in Palestine, was called to attend a lady in confinement. She, an innocent woman, had contracted syphilis from a profligate husband. From her the doctor contracted a chancre on his hand, secondary symptoms supervened, and in a short time he was attacked with the tertiary form of the disease; nodes formed on his skull, the bones became necrosed, and after suffering for months, pain of the most intense character, died from the effects of this loathsome disease.

Will any sane man affirm that a law that would have prevented the contraction of syphilis by that dissolute husband would be a violation of one of God's laws?

What really disgusts truly learned physicians, is the publication of such cases of cure as the following, which appeared in a recent issue of the *Western Christian Advocate*, a paper, by the way, that is generally free from such literature:

FAITH CURE.—Theoretically, we all believe that the prayer of faith shall save the sick. Practically, we deny it. A remarkable cure, in answer to prayer, recently occurred in our town, Belleville, Ohio. About a month ago, William Black and family, of West Chester, Pennsylvania, moved here. Learning that they were members of the Methodist Episcopal Church, I called upon them. Miss Mary A. Rumer, a sister of Mrs. Black, resides with the family. In conversation with Miss Rumer I obtained the following facts: Twenty-four years ago she was attacked with a spinal affection, which baffled the skill of her physician; a council was held and she was pronounced incurable. During all these years

she had been an almost constant sufferer, seldom ever able to stand on her feet without great pain. For several years, a tumor has been growing on her side, which was a source of great annoyance; and for about a year she has been confined to her bed, most of the time unable to help herself. In conversation with her I was strangely impressed that the prayer of faith would save her. I quoted several of the precious promises of our Savior, and joined with her in prayer. On the 30th ult. the young people's prayer-meeting was held at her house. She was made the subject of prayer. She said: "I believe that through prayer I would be raised up, if I could only feel that it is God's will to restore me to health." She wrestled with God all night, to know whether it would be in accordance with the divine will to ask for her complete restoration. About the break of day she received the evidence [conviction] that it was His will to heal her. She spent the day in sweet communion with her Savior. In the evening she asked the family to join in prayer for her restoration. While they prayed, she experienced that the Lord had touched her infirmities, and that she was made whole. She immediately arose and gave thanks to God for what he had done for her. The tumor had disappeared, all pain had ceased. She walks around with ease, and, to all appearance, she is perfectly cured.

We know nothing of the above case and cure, beyond the narrative here given, and regret that a better history of the case is not published, especially in regard to the tumor, its character, precise location, parts or organs involved. Was it cancerous? If so, was it encephaloid, scirrus, or colloid? Was its structure fibroid, glandular, or erectile? etc. The only possible explanation we can arrive at that solves the query as to the nature of that incurable tumor, is that it belonged to the *genus* phantom.

The publication of such cases by the religious press does the cause of religion far more harm than is possible from any amount of honest scientific research.

We are in receipt of the following circular, which indicates a degree of activity in the medical profession in Central Ohio that is deserving of commendation:

COLUMBUS, OHIO, January 13, 1876.

GENTLEMEN:—The manifest growth in interest and importance of the transactions of the Central Ohio Medical Association impels the Executive Committee to again appeal to gentlemen of the profession, resident in the central counties of the State.

Believing that no physician of to-day can afford to deprive himself of the benefits immediately resulting from the association of an active medical organization, and feeling that the increasing interest and importance of the proceedings of the Central Ohio Medical Association not only invite, but demand your attention, we again earnestly request your attendance upon its meetings, your participation and co-operation in its labors.

At no time in the past has scientific investigation assumed the importance, and at no time in the past has the American medical mind been so awakened to the demands of the profession, as at the present. Associative action has become a desideratum for the investigation and rapid diffusion of the truths of nature and science.

Our duties and relations to the public require, as well as our self-interest demands, that we avail ourselves of all the avenues of culture.

The opening meeting of '76 was most auspicious, and gave earnest hopes of new life in our organization, and full promise for the future. Renewed energies and increased efforts will insure us a fruitful year.

The Association will convene Thursday, February 3, 1876, in Columbus, City Hall, Board of Trade Room, at 10 o'clock prompt.

SUBJECTS OF DISCUSSION:—*Small-Pox Epidemic of '75*.—Paper by Dr. Geo. S. Stein, Columbus. Discussion opened by Dr. W. H. Drury, Columbus, Dr. Geo. W. Bæstler, Lancaster.

Stone in Bladder.—Paper by Prof. John W. Hamilton, Columbus, with report of cases. Discussion opened by Dr. N. Gay, Columbus, and Prof. J. H. Pooley, Columbus.

Diphtheria.—Opened by Prof. D. A. Morse, London, Prof. E. H. Hyatt, Delaware.

ERRATA.—In the lecture of Dr. Morse, in our last issue, the printer made several errors:

Page 19, line 20 from top, for *resolution* read *revelation*.

Page 24, line 13 from top, for *careless* organization, read *cerebral*.

Page 33, for mind as an *entirety*, read *entity*.

Page 36, in three places, read *phenomena* for *phenomenon*.

Page 40, for the *body* thus acts upon the body, read the *mind* acts, etc.

Page 41, for mortal *path*, read *part*.

Page 43, No " after expounder, last word of the lecture.

Governor Hays has appointed Dr. William H. Mussey, of this city, Surgeon General of the State of Ohio.

The following circular explains itself. Any aid given Dr. Riopel, will be appreciated and acknowledged.

CRIMINAL INSANITY.—A work of about 800 pages, 8 vo., now in preparation by E. E. RIOPEL, A. M., M. D., Cleveland, Ohio, author of a work on "The Mind," etc.

DIVISIONS AND CHAPTERS.

1st DIVISION.	{	CHAPTER	I.	Criminal Acts.
		"	II.	Penalty for Crime and Why.
		"	III.	Who are not Culpable and Why.
		"	IV.	Statutes of Each State Defining Insanity.
		"	V.	Opinions in regard to Emotional Insanity.
2d DIVISION.	{	CHAPTER	I.	The Brain (with cuts).
		"	II.	The Mind.
		"	III.	The Faculties.
		"	IV.	Limit of Reason.
		"	V.	Intuition.
		"	VI.	Insanity (with cuts).
		"	VII.	Opinions in regard to Insanity.
3d DIVISION.	{	CHAPTER	I.	Feigned Insanity.
		"	II.	Brain Disease (with cuts).
		"	III.	Capital Punishment.
		"	IV.	Opinions on Capital Punishment.
		"	V.	Statistics on Criminals (with cases).

DEAR SIR:—Your opinion is respectfully and earnestly solicited on the above subject which you will find underscored, or any other subject you may feel disposed to communicate, and which will be duly acknowledged by the author. This work is intended to hold the views of the best American minds.

E. E. RIOPEL,

303 Detroit Street, Cleveland, O.

To be remembered, that the price of the LANCET AND OBSERVER, to one old and one new subscriber, for one year, is \$6.

Reviews and Notices.

Address in Obstetrics and Diseases of Women and Children. (Transactions of the American Medical Association.) By WM. H. BYFORD, M. D., 1875.

This extremely interesting paper relates principally to the treatment of fibroid tumors of the uterus by ergot. Dr. Byford has

collected the histories of 101 cases treated by this remedy. In twenty-two of these cases the disease was cured. In thirty-nine the tumors were diminished in size, and the hemorrhage and other symptoms disappeared. Only twenty-two of the cases treated were not benefitted. Dr. B. discusses the manner in which the drug should be used, also its different preparations. It is remarkable that so many medical men seem to hesitate in giving ergot in large doses. In order to have the full and rapid benefit of the drug it should be given in large and long continued doses—thirty drops three times a day, or a drachm twice every twenty-four hours is thought by many physicians to be a maximum quantity. Some years since the reviewer had occasion to use ergot in enormous doses for the purpose of arresting a persistent laryngeal hemorrhage from which he suffered. Off and on up to the present time, whenever premonitory symptoms of the disease have showed themselves, ergot has been freely used, and its effects carefully noted. Very often an ounce of Squibb's fluid extract has been taken every day for several weeks at a time. On several occasions the medicine has been swallowed from the bottle in overdoses (probably $3\frac{1}{2}$ to 4 drachms), and unpleasant, though not dangerous symptoms have supervened. It is a mistake to suppose that ergot is a dangerous remedy, and that its long continued use gives rise to gangrene; it is to be doubted whether a well authenticated case of gangrene, following the medical use of ergot has ever occurred; nevertheless the medical "bugaboo" that one's toes will drop off if the use of the remedy is long persisted in, seems to deter physicians from prescribing the drug as often as they should. It is a sublime consolation to the reviewer to know that his own toes are still where they should be, and having had much personal experience with the remedy he pronounces the gangrene story to be a vile slander on a most valuable remedy. The physiological effects of ergot on the reviewer may be briefly noted, and it might be stated here that the first doses taken were as large as any taken since.

1st. In two drachm doses ergot is a cardiac sedative; after the second dose the pulse has frequently fallen from 87 to 62, and even to 60 beats. (In the latter case the full symptoms of complete ergotism were always present.)

2d. The temperature of the extremities (legs and arms), falls rapidly under the use of two drachm doses of the drug, while in the axilla the thermometer still marks the normal temperature. The number of respirations per minute are diminished from 14 to 10 or 11.

3d. In two drachm doses frequently repeated drowsiness comes on, ringing in the ears, and slight dizziness, neuralgic pains in both orbits, and occasionally some dimness of vision, pains in the smaller points of the extremities, wrists, ankles, fingers and toes. If the recumbent posture is assumed these symptoms immediately subside, to be renewed when the erect posture is taken.

4th. When three or four drachms are taken the symptoms just given are more marked. In addition there is nausea, and sometimes acid eructation from the stomach, violent cephalalgia, and vertigo. The lower limbs tingle and become numb, and in walking one feels as if both legs were asleep, to use a common expression; in fact there exists a kind of temporary paralysis of the muscles of the limbs, sensibility as well as motion is decidedly affected. One or two strong cups of coffee with 10 to 20 drops of laudanum will dispel these symptoms in the course of an hour.

A remarkable thing about ergot is, that one does not become habituated to its use. Two drachm doses have the same effect every time they are taken. I have in several cases given the medicine to patients in one and two drachm doses without causing any unpleasant symptoms. The nausea arising from the use of ergot may be completely obviated if five drops of chloroform, five of tincture of opium, and ten of tincture of capsicum are given each time with the ergot. It is not our intention to discuss the subject further; our remarks were called out by what seems to be a fear on the part of the authorities quoted by Dr. Byford, that ergot may be given in too large doses. From our own personal experience we can state, that the purest and best of preparations (Squibb's fluid extract), may be safely administered in doses of from one to two drachms every four hours, or as indicated; in higher doses it produces the toxic symptoms described, but is not as dangerous as most authorities imagine.

T. C. M.

Hospital Plans. Five Essays relating to the Construction, Organization and Management of Hospitals, contributed by their authors for the use of the Johns Hopkins Hospital, of Baltimore. New York: WILLIAM WOOD & Co., Publishers. For sale by Robert Clarke & Co.

The late Johns Hopkins, a wealthy citizen, left a will in which he bequeathed a large sum of money to be used in the construction and support of a hospital, mainly intended for the use and benefit of the indigent sick of the City of Baltimore and its environs. For the assistance of the Board of Trustees, five gentlemen, each of whom is worthy of being called an expert in the construction and management of hospitals, were selected to prepare an essay or report on the best method of carrying out the provisions of the will of the eminent philanthropist.

The first essay is by John S. Billings, Brevet Lieutenant-Colonel and Assistant Surgeon, U. S. A. After considering the relations a medical school should sustain to a hospital, and advocating their direct connection, as in the interest of both the inmates of the hos-

pital and medical education. In the organization and general plan of management, takes up the subject of Hospitalism, its causes, and injurious effects. He recommends the erection of permanent buildings on what is known as the pavillion plan; the pavillions being totally separated, covering a larger space than usual, giving to each pavillion its own heating and ventilating apparatus. Very complete diagrams of all portions of the proposed hospital are given, with estimated cost; advising that whatever the plan adopted not less than fifteen hospital tents, United States Army pattern be kept constantly on hand, and made methodical use of as isolation wards. A provision that can not be too highly commended, and that should be brought to the attention of all Boards having control of hospital and asylum structures.

The next report is by Norton Folsom, M. D. After commenting on the delicate nature of the connection that should exist between the medical school and hospital, he well says that "instruction in a hospital is an *indispensable* part of thorough medical education." Recommends that the medical school be separate and apart from the hospital, but within a few minutes walk from each other. Within the hospital should be the training school for nurses.

In the construction of the building he recommends one-story wards; depending on low-pressure steam apparatus for heating purposes. The report is accompanied by diagrams for a one-story hospital.

The third report is by Joseph Jones, M. D., of New Orleans. In which is advocated the method of combining the advantages of temporary and permanent hospitals. Recognizing it as an important principle in the construction and conduct of permanent hospitals, but which has not yet been adopted, "*that at least one-twelfth of the entire ward space should at all times be vacant.*" The building should be permanent and fire-proof. In regard to the management he says "the attending physicians and surgeons should receive *liberal and just compensation for their services.*" This report is also accompanied by diagrams of a pavillion hospital.

The fourth report is by Casper Morris, M. D., who presents the plan of the *Hospital of the Protestant Episcopal Church of Philadelphia* as the basis of his paper, stating that as a result of many years trial but few modifications, and those not essential, have been found necessary. Plans in detail accompany the report.

The fifth report is by Stephen Smith, M. D., in which is advocated the pavillion plan of one-story in height, and of permanent buildings, with ventilation by common fire-places. Dr. Smith having had large experience as a medical teacher, his opinions in connection with the establishment of a medical school in connection with the hospital, are deserving of thoughtful consideration, and which we take the greatest pleasure in indorsing as the true course. He says: "The organized methods of teaching in this country are imperfect, and practically yield little more than elementary instruction. The educating bodies are private corporations, empowered to fix their own standard of qualification, and to bestow on whom

they please the doctorate of medicine. As these educating and licensing corporations are supported entirely by the fees of students, and are irresponsible to any other authority, it naturally happens that in their rivalry for patronage the lowest possible standard of qualification obtains.

No school would presume to institute a preliminary examination of the students applying for admission to test their mental or educational fitness for the course of study.

In the lecture-room students of every grade of advancement are assembled to listen to the same lecture, and no oral examination is made except at the option of the student. In the final examination the student is required to answer a few technical questions, and is then advanced to the highest rank known to his profession. The consequence of this vicious system of education is that the standard of medical qualification is extremely low, the degree of Doctor of Medicine is a misnomer, and the country is overrun with titled but unqualified practitioners.

In the munificence of Mr. Hopkins we have the prophecy and possibility of a reform in medical education which will be general in its character, and permanent in its results. Incorporated into the University, as an integral part of its system of education, the Faculty of Medicine will be required to subject their students to the same tests as are required in the other departments, to grade the course of instruction, and firmly to exclude all unqualified applicants for its degree of Doctor of Medicine. While there can be no doubt that a school thus organized and conducted would at first repel medical students who were pursuing their studies and seeking graduation through the old channels, it is equally certain that in the near future such a school would be the center of attraction to the profession in all parts of the country, and would assume a national character and importance."

Of the relations of a hospital to a medical school he says further: "No medical school can be regarded as properly endowed for instruction which has not the advantages afforded by a hospital. It is at the bed-side only that the student can be successfully taught the practical duties of his profession. The hospital also furnishes the basis of pathological or morbid anatomy, a branch of medical education of the first importance. Facilities can also be furnished for the study of practical anatomy. In these particulars the hospital should be required to contribute to the course of instruction pursued in the medical school."

As to the executive management of the hospital, Dr. Smith, in common with Drs. Billings, Fulsom, and Jones agree, should be in the hands of a resident physician or medical superintendent, who should be held rigidly responsible to the governing Board, but should have no direction whatever of the medical and surgical treatment of patients, except in cases of emergency.

The work also contains the plans of the Johns Hopkins Colored Orphan Asylum for three hundred children.

Hermaphrodisism, from a medico-legal point of view. By BASILE POPPESCO—translated by EDW. WARREN SAWYER, M. D., Lecturer on Obstetrics in the Rush Medical College. Chicago: Keen, Cook & Co., 1875.

This is a thesis of forty-five octavo pages presented to the Faculty of Medicine in Paris, for the degree of Doctor of Medicine. The words "medico-legal" in the title, excite in the mind of the reader the expectation of finding in the work the "picked and packed words" of close reasoning, in which he may be not altogether, disappointed. The subject is thus divided:

I. Apparent Hermaphrodisism in the male sex. II. Apparent Hermaphrodisism in the female sex. III. Neuter Hermaphrodisism. And this third class is divided into two varieties: 1st, Hemaphroditites whose sex is not easily determined; and, 2d, bisexual Hermaphroditites in whom is observed the simultaneous existence of the organs of both sexes.

The first variety does not exist, as every human being has some sexual attribute. The immense majority of the profession do not believe that the second variety exists. Professor Tardieu does not admit a single authenticated instance of bisexual Hermaphrodisism. There are, however, three cases claimed, one reported by Geoffroy Saint-Hilaire; one by Schrell, and the case of Marie-Madeleine, of Sefort.

Of case V, which appears to be the case recently exhibited in this city, the author says that it is, "One of the clearest examples of bisexual Hermaphrodisism." An assertion which will not, even though free use is made of the names of Rokitansky, Seultz, and Virchow, carry conviction to the minds of those who saw it.

The subject is one of extreme interest physiologically and medico-legally. The profession need to re-examine it. Dr. Sawyer has happily given them the opportunity. A. C. K.

Phthisis: Its Morbid Anatomy, Etiology, Symptomatic Events and Complications, Fatality and Prognosis, Treatment and Physical Diagnosis, in a Series of Clinical Studies. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine, and of Clinical Medicine, in Bellevue Hospital Medical College, Etc., Etc. Philadelphia: Henry C. Lea. For sale by Robert Clarke & Co. Price \$3 50.

The long experience and well-known reputation of Dr. Flint as a conscientious and systematic observer, renders any work of which he is the author of special value, as it at once takes rank in medical literature as recognized authority. This book is largely made up of the preserved notes of six hundred and seventy cases treated by Prof. Flint during the period of thirty years. The histories of

the cases are carefully noted and tersely written, and introduced to illustrate the various points of interest in this most common of diseases. The work is practical, giving the treatment adopted by the author, as well as the symptomatology, diagnosis, and prognosis of the disease in its various stages.

American Clinical Lectures. PERITONITIS. By AEFRED L. LOOMIS, M. D.

No. IX. of this series of interesting papers is before us, containing the report of several cases of acute peritonitis. Some of these cases are remarkable for the obscurity of their earlier symptoms, as well as for their fatal termination for a brief period of time. The clinical history of each patient, and the study of the various pathological lesions observed, are highly instructive. Prof. Loomis, states, that he does "not believe exposure to wet and cold, ever directly develops peritonitis." He thinks intestinal obstruction and perforations of different intestinal organs, extension of peritoneal inflammation from organs covered by the peritoneum to the peritoneum itself, and infection, are the exciting causes of the disease. In this statement he will be sustained by the opinions of most medical men. That acute peritonitis is often the direct result of exposure to wet and cold, however, there can be no doubt. Taking his own clinical histories of cases No. 1, and No. 3, we should most certainly judge that exposure to cold was the direct cause of the attack. The pathological lesions observed in case No. 3, might possibly exclude such a conclusion, still there is a reasonable probability that the pathological lesion found in this case, may have been due, at some remote period, to such exposure, the course of treatment pursued is that laid out by Dr. Alonzo Clark, *i. e.*, the opium treatment. Dr. Loomis, does not believe in the use of purgatives, for the reason that the muscular fibres of the intestine are paralyzed by the inflammatory action set up in peritonitis, and therefore peristaltic movement will not occur; Dr. Loomis, advises physicians not to use purgatives in acute peritonitis. This advice, so far as it concerns the disease when fully developed, is good; nevertheless there occur cases dependent on impaction, or exposure to cold, in which the disease may be cut short in its onset, by the use of a cathartic; the opium treatment to be afterward carried out. The paper of Dr. Loomis, is most excellent and readable.

T. C. M.

Report of the Health Officer of San Francisco, 1875. BY HENRY GIBBONS, M. D.

This is a neat paper containing some eighty pages. The beauty of these annual health reports from San Francisco, is their reliability; no attempt is made to hide mortality statistics. The classification of diseases into various groups, and the subdivisions of

these groups again, with a separate entry for each cause of death reported, when necessary, makes the mortuary tables very valuable for the medical statistician. Thus in the deaths from cancer, (classed among the constitutional diseases), we have a separate entry for each form of the disease, and its location, cancer of the stomach and uterus are the two most common forms, 16 patients dying from each. Deaths from various aneurisms are arranged in the same way; thus deaths from aneurism of the aorta, numbered 11; deaths from aneurisms of thoracic aorta, 7; deaths from aneurism of abdominal aorta, 2, etc. It is very seldom, that we have an opportunity to verify a diagnosis, by an autopsy. Judging from the minuteness with which the returns of death are filled out by San Francisco physicians, we come to the conclusion that they must rank high in point of medical ability, and also, that the population of that city are more intelligent than most populations, for many entries giving causes of death, could only have been verified by post mortem examinations; for instance, abscess of the brain, 3; tumor of brain, 4; aneurism by anastomosis of superior thoracic and epigastric arteries; rupture of right auricle; rupture of aortic valve; perforation of bowels; intussusception; abdominal tumors; rupture of gall bladder; abscess of kidney, etc., etc. Among the rare cases of deaths, were those from elephantiasis; rupture of the urethra; imperforate rectum; hydrometra; rupture of the uterus; needle wound of heart; rupture of kidney; rupture of spinal cord, etc., etc. The report is most carefully prepared, and reflects great credit on the Health Officer, it is well worth perusal.

T. C. M.

A Text-Book of Human Physiology: Designed for the use of Practitioners and Students of Medicine. By AUSTIN FLINT, JR., M. D., Professor of Physiology and Physiological Anatomy in the Bellevue Hospital Medical College, New York, etc. D. Appleton & Co. For sale by Geo. E. Stevens & Co.

This capital text book, is in fact a condensed edition of Professor Flint's, large treatise recently published in five volumes, Bibliographical Citations and Matters of Purely Historical Interest are omitted. We find, however, the latest Physiological Researches, including the recent Interesting Observations of Fritsch and Hitzig of Germany, Ferrier of England and Putnam of Boston, on the functions of the Cerebrum and Nervous System. The authors observations on experiments to determine the Glycogenic functions of the Liver, etc. The numerous illustrations are excellent, some of them being reproduced from the fine microscopical photographs taken at the United States Army Medical Museum, under the direction of Dr. J. J. Woodward, others are electrotypes of the superb engravings in M. Sappey's, illustrated work upon Anatomy. Prof. Flint is well known as a successful teacher and practical

demonstrator of Physiology. This work illustrates his method of teaching and research, and it gives us pleasure to commend it to the profession as valuable for study and reference.

Transactions of the Illinois State Medical Society, 1875.

This is a handsomely bound and printed volume of some 300 pages, containing the reports of the various sections of the society; voluntary papers and discussions on the same—the papers are all above the average. Those read by Drs. Lester Curtis, Joseph W. Freer, John N. Niglas, Wm. P. Pierce, E. I. Herriot, T. Davis Fitch, H. A. Johnson, and F. W. Gray, bear the evidence of careful preparation. We always read with a pleasure akin to pain, the addresses of the retiring Presidents of the various State Societies. The lofty platitudes and spread-eagleisms indulged in by these gentlemen, almost without exception, are calculated to cause a smile to irradiate the roseate features of our transatlantic confreres. “None but the gentle touch of a master hand should wake the chords of your tender memories, and thrill you with the harmonies which this occasion has the power to inspire. It is with no affected diffidence, then, that I assume the responsibility, while such a wealth of memories cluster around the memorial hour,” etc. “From the unknown of yesterday, into the unknown of tomorrow, the purposes of the Infinite One are only apparent, as He unfolds the panorama of the ages,” etc. “Upon the dial of the nineteenth century the finger point was at high noon; civilization had scarcely yet decreed that this should be her resting place; the camp-fires of the red man had scarce gone out; the smoke from his wigwam was yet in the West, the print of the foot was yet in the trail. He paused a moment to behold the skirmish line of the advancing host, and then he went out to return no more,” etc. What all this has to do with the “Elevation of the National Standard of Medicine,” we fail to perceive. Taking the “Transactions” all in all, they compare favorably with the transactions of other State societies. T. C. M.

Transactions of the Kansas Medical Society, 1875.

A neatly printed brochure of 80 pages. Some of the papers are very interesting, one by Dr. G. L. Lewis, on the “Effects of Compressed Air upon the Human System,” especially so. The physiological effects of compressed air on the workmen engaged in building a bridge across the Missouri River, at Atchison, have been carefully noted, and some very instructive cases are reported. We regret that the valedictory address was not shorter. “Look at the chalk cliffs of England, which once, no doubt, extended across the English Channel to the similar cliffs of the French coast. But we do not see the chalk cliffs wearing away either on the eastern or western coast of America, and why?” Here the valedictorian must have paused for a moment, as the answer fluttered on his lips. “Simply because we have no chalk cliffs to be worn away.” This is sublime.

T. C. M.

The Sanitary Condition of Boston. 1875.

Report of a Medical Commission, consisting of Drs. Buckingham, Ellis, Hodges, Green, and Curtis. In the brief space allotted for review, it would be impossible to do it justice. Suffice it to say that the report is a most elaborate and carefully prepared one, as are all the reports emanating from the Boston Health Office. It is specially interesting to sanitarians, and those interested in public hygiene. The work covers some 200 pages, and includes a number of handsome charts and maps, having a special bearing on the subject.

T. C. M.

Physician's Diary for 1876, Published by Tilden & Co.

A neat pocket-book for every physician, containing a list of medicines, with their administrative doses, besides several other useful points as to the pulse, thermometry, etc.

Physician's Combined Call Book and Tablet. By RALPH WALSH, M. D., of Washington, D. C.

Is superior to anything of the sort that has been placed in our hands. It is compact, light, may be used any year, and is not half filled with leaves that no physician ever uses. Price, mailed, postage pre-paid, \$1 50.

Obituary.

Once in a while it becomes the painful duty of the living, to make notices of the dead.

Associated in the form of society, we become connected to each other by blood, friendship and acquaintanceship. A relationship everchanging and yet in some sense ever the same.

Dr. A. J. Bond, was born in Harrison County, Virginia, in 1807, and died in Tarlton, Pickaway County, Ohio, in his 69th year.

Had been engaged in the practice of medicine, for more than forty years. Although not entirely unexpected, his death created the deepest sensations of sorrow and grief. The feeling was universal that a good man had fallen. He was certainly the most even tempered of any man with whom I ever become acquainted. "He died in the full triumphs of a living faith in Christ."

J. R. K——, M. D.,

Tarlton, Ohio.

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Original Communications.

Art. 1.—Science versus Quackery.

By CHARLES P. KING, A. M., M. D., Newark, Ohio.

It is in the nature of things that as professions become surcharged with Professors, there is thrown to the surface an element of dross, fitter to be remanded to the crucible of study than to be of any service to the world.

The law has its pettifoggers, the ministry its vain pretenders, and it would be strange if medicine had not its *quacks*. The medical profession at the present day is not what it once was. Profound investigation has given rise to the most superficial examination of the subject. Study has become a sort of mechanical memorizing, and the degree of "Doctor of Medicine" has in a great measure lost its dignity and importance, being assumed by every one who has administered a dose. Physicians spring up like mushrooms in a night, and the neighborhood is unknown that is debarred the privilege of—

"Dwelling on those golden words on little bits of tin,
That tell the traveler a Doctor is within."

Admitted that there is no class of men in a community that could be so illy dispensed with as physicians, yet how few think you of the present day Esculapius would have consented

to recognize as brethren; how many would he have consulted with reference to a desperate case; how few, rather, would he have deemed competent properly to blend a prescription? But this is not the fault of the profession. Not content to abide a legitimate promotion in their profession, some physicians greedily take a twenty years' stride in a day, and with a dozen sugar pills carefully enconced in a box, and as many jars of chalk or soda, labeled carbonate of lime, or muriate of soda, they publish themselves to the world as physicians of long standing and practice, well established and fully competent to answer satisfactorily all calls in their particular line of business. Let us not be misunderstood as speaking in a spirit of ridicule. Such a state of affairs should not exist in any profession, much less in the medical; and while we assert that in the latter it has become a fearful epidemic, we would suggest to the fraternity that they turn their attention to the curing of it, which, if they succeed, will enable them to honestly and deservedly claim the distinction now held by an illegitimate tenure.

The science of medicine is the growth of centuries. It possesses a nobility that every medical man should feel bound to protect. Like astronomy, its fields are ever open to new discoveries, and its truths are only less sacred and salutary than are the truths taught by the Gospel. Unlike some sciences that have been well nigh mastered, and most of whose secrets are no longer hidden, no generation of men will live to see the last discovery in the science of medicine, even should time linger on through eternity.

Who that has kept pace with the rapid progress our profession has made during the last four or more score years, does not stand uncovered before the majesty of those discoveries drawn by master minds from the prolific womb of our science, blessed offerings to a dying people. Need we call to mind in this connection those wonderful discoveries of chloroform and ether, both of which have added so much luster to this present century? The discovery of the anæsthetic properties of these two agents is a blessing which is not confined to any single period of the world's history, or to any section of mankind, but whenever or wherever there is pain and suffering; that is to say, as widely as the human race is scattered, and so long as it endures on the face of the earth, their value will be appreciated. To America belongs the credit and honor of having discovered these two perhaps greatest blessings ever bestowed upon the human race, and the names of Guthrie and Wells will be handed down to future ages with those of the immortal

Harvey, and Jenner, and others, whose lives mark an epoch in medical science.

It seems strange that the use of chloroform and ether should ever have met with any opposition; looking back from our present standing points, it is difficult to understand the controversy which at one time raged so furiously upon the subject. Like every other great discovery, they met with opposition on every side. Letters were written, pamphlets published, to prove that pain was a part of the curse inflicted upon man at the fall, and that it was sinful to attempt to escape from it. While, on the other hand, letters were written, articles published, to show that pain is only one of the evils attendant on our fallen state, and that man is at perfect liberty to lighten his burden, as best he can, by the use of any means which God in His infinite wisdom has placed within his reach. Who can for a single moment properly estimate the value of chloroform and ether in allaying pain and human suffering? Their introduction has marked an era not only in the history of medicine, but also in the progress of surgery. Many operations are undertaken and successfully performed which would hardly have been attempted thirty years ago. Almost all the important surgical operations of to-day are performed while the patients are under the influence of one or the other of these agents. "It is possible," says another, "that at some future time some better anæsthetic than these may be discovered; but even if this happy result may be attained, chloroform and ether will always be remembered as signal examples of the successful efforts made to diminish human suffering, and of the victory of science over physical suffering."

What shall we say of that galaxy of illustrious names in our profession whose lives were devoted to the cause of science? A Rush, a Physick, a Chapman, an Eberle, a Drake, a Meigs, a Mussey, a Brainard, a Duglison, a Ward, a Jackson, a Hodge, and a host of others, whose names have become as household words among us. Men, who in point of intellect, were peers of any in their day and generation. We may well ask ourselves the question whether we are worthy to follow in the footsteps of such illustrious men? Are we doing all in our power to uphold the honor and dignity of the profession? If not, we are certainly sailing under false colors; and it is high time that we should know just how we stand, and whither we are drifting.

When, years ago, a loathsome disease terrified the world with its frightful destruction of life, breathing huge blotches of repulsive matter on the cheek of the beautiful maiden, and fin-

ishing its work only by leaving in the place of beauty a spotted deformity, sensibly were men reminded of the plagues spoken of in the Bible, and with what earnestness did they supplicate deliverance from them. Now, how comparatively slight are the terrors which small-pox creates? A simple remedy discovered, it is true, by accident, has blunted the sting of that dread disease, and placed within the reach of the poorest a means of escape from it. All honor to the immortal Jenner; may his name be revered throughout all time as one of the greatest benefactors of the human race.

Later in years there swept over the land with lightning speed a spectral visitor that entered unforbidden the dwellings of both rich and poor. Relentless, uncompromising, and pointing its fatal finger at the babe in the cradle, then at the old man whose days were well nigh numbered. The strong man whose frame had never known disease yielded almost instantly to its touch, and returned to his original element. The belle of the quadrille was struck down in the ball-room, her sweet life going out in a dizzy whirl, and her party dress gave place to the shroud. Alas! with what sorrow did men contemplate the sudden melting away as it were of humanity, while there were audible whispers of "who shall come next, is it I?"

Terrible as were the ravages of cholera on its first appearance, as well as since; keen as was the anguish wrung from the hearts of those left alone by it, yet who will say that we are as unacquainted with its character to-day as we were when it first invaded our shores? Have not brave spirits in our profession been wrestling with it for years, and refusing to relinquish their hold until compelled by death to yield? All honor to our noble brethren who have fallen in such a struggle, and let this be inscribed upon their monuments: "They died in their efforts to save others."

It is unfortunate for the country, as well as the profession, that so much latitude is allowed in the practice of medicine. The courts of the land might give us some protection by making it an offense, punishable by fine or imprisonment, for a man to wrongfully hold himself out as a Doctor of Medicine, tacking to his illy-spelled name the title we hold sacred; earned as it has to be by years of study, and duping thereby legions of suffering people. Something ought to be done in every State at least to prevent the utterly unscrupulous from practicing their deceptions in the face of day, and making our profession a cloak for the committing of nefarious procedures as hurtful to the morals as well as health of the community.

The Legislature of Pennsylvania, at the request of the State Medical Society, has passed some most excellent laws regulating the practice of medicine in that State. Why can not our Legislature be induced to do the same thing? It is high time we were attending to this matter, and the sooner the better. Will we do it, that is the question?

What are the facts? Put into the hopper of a man's brain a few high sounding medical phrases, be they tumbled together never so scandalously; add the assurance of a coxcomb and the visage of a wiseacre, and presto, you have the celebrated Dr. Puff, late Surgeon of the——Paris Hospital, whose cart load of medals silence incredulity, and whose limber tongue, touched just enough with foreign accent, draws the unwary into his toils. He is *itinerent*, graciously (?) sacrificing an immense practice at home to the wants of diseased millions all over the land; rarely, however, visiting the same place *twice*. Like that venerable member of our profession whose "sands of life" have scarcely stopped running even yet, although "well nigh run" for the last thirty years. So is our Parisian Doctor, ever about returning to his beloved Paris, but he retires, craw full of gold, to the little country town whence he sprang. To call such a man a physician is down-right mockery; and yet the profession must submit to the indignity of being encumbered with just such vermin until public sentiment is changed. Nauseating as it is to dwell upon such subjects, it is, nevertheless, a stubborn fact that the country is full of just such humbugs and swindlers. No less true is it that public sentiment not only tolerates but countenances them, and even were you to sue them for damages in malpractice, the chances are that you would find yourself in the predicament of the beggar; you would be sure to catch a —, for they have a convenient way of putting away every thing subject to execution beyond the reach of the law.

Seriously, now, a physician's ability is measured among the masses by his success. Be he never so unskilled in the use of the knife or medicine, even to the degree of being incompetent of applying the plainest rules to the simplest case, yet if by accident he effects certain cures, supposed to be miraculous, his fame is assured, and he proceeds bunglingly to kill thousands where before he had cured one.

The bed-ridden invalid, restless for the return of health by the slow, but sure process of scientific treatment, seizes the plausible patent medicine, gorges his system with the unknown preparation, and dies a poor miserable enthusiast of the poisons that killed him. This is no stretch of facts; and while

what has been said is familiar to all of us, it does no harm to refresh our recollections of them, if per chance an antidote may be found.

What is to be done, then? Plainly, public sentiment must be changed. That is the citadel we must attack, and if we can not carry it by storm let us do it by siege. We must publish these public plunderers and murderers far and near, and every physician should make it a personal matter, and endeavor to have his influence felt throughout his own State. The dignity of the profession requires it, the interests of every community demand it.

Thus has it been since medicine was acknowledged to be a science, that those who have had the good of the profession at heart have abated no effort to solve the mystery of every disease philosophically, and their investigations have been always directed to the seat of disease itself. With what success, let the fact that the mortality in the more fatal diseases is daily diminishing answer.

No thanks for these results to those empirics of the profession, properly styled quacks! To them alone belongs the honor (if such it can be called), of originating that "kill or cure" system of practice, about which there is nothing positive or tangible, and which is little else than a system of brainless experiments. And while we bewail the existence in our midst of this class of practitioners, we should be very careful how we irritate them, for they are numerically very strong, and should they in a fit of passion draw the stoppers from their patent medicine bottles, the world might be witness to a second deluge.

Quackery is not a new delusion; the world has always loved it. In our own country quackery of all kinds has become exceedingly popular, and it seems as though the American people take delight in being humbugged. Its popularity is not confined to the ignorant and uneducated, but many of our best cultivated minds, clergymen, lawyers, and men of letters, can be found patronizing these deceivers of mankind. What a comment on the intelligence and enlightenment of this nineteenth century. It is not surprising that quackery should have flourished during the dark ages, when ignorance and superstition ruled the masses as it were "with an iron rod;" but that it should be countenanced in this age of enlightenment, is certainly a difficult matter to comprehend. It is perfectly astonishing to what extent deceptions were carried in the early ages of the world, and even up to within a recent date.

Fabian Withers, speaking of physicians, declares; "So far are they distant from the true knowledge of physic, which are ig-

norant of astrology, that they ought not rightly to be called physicians, but deceivers; for it hath," says he, "been many times experimented and proved, that that which many physicians could not cure, or remedy with their greatest and strongest medicines, the astronomer has brought to pass with one simple herb, by observing the moving of the signs; the virtue of the herbs were considered to be according to the influence of the plant under which they were sown or gathered. Black hellebore was to be plucked, not cut, and this with the right hand, which was then to be covered with a portion of the robe, and secretly conveyed to the left hand. The person gathering it was also to be clothed in white, to be barefooted, and to offer a sacrifice of bread and wine. Verbena was to be gathered at the rising of the dog-star, when neither sun nor moon shone; an expiatory sacrifice of fruits and honey having been previously offered to the earth. Hence arose its power to render the possessor invulnerable to cure fevers, to eradicate poison, and to conciliate friendship. The mistletoe was to be cut with a golden knife, and when the moon should only be six days old." This is but a specimen of the superstitions of the past, and we fear that even at the present time many carry their superstitions even farther than that; a belief in the philosopher's stone lasted for a very long period, and the memory of several very eminent men is chargeable with the folly. Lord Byron, it is said, speculated upon it; and Sir Isaac Newton is said to have entertained at one time the idea of the possibility of finding it, and also to have acknowledged that the idle and vain pursuit of astrology had led him to cultivate astronomy.

It is said that the great Doctor Johnson was a firm believer in witchcraft, and that he presented himself at one time to the King in order to receive the royal touch, expecting thereby to be cured of a malady which had been troubling him from his birth. It is related that the eminent Sir Thomas Browne, who, it will be remembered, received the honor of Knighthood from Charles the Second, had himself faith in the touch, inasmuch as he recommended the child of a nonconformist in Norfolk, who had been long under his care without receiving any benefit, to be taken to the King. Little faith, however, being held by the father of the child as to the efficacy of such intervention, he scorned the advice, and the child was, therefore, under the pretense of a change of air, taken without the consent of the father abroad to the King, where it was submitted to the royal touch, and returned perfectly healed. Astonished at the change effected in his child's appearance, the father inquired as to the

means that had been employed, and upon being made acquainted, he not only acquired faith as to the power of the royal touch, but also cast off his unconformity, exclaiming, "Farewell to all dissenters and nonconformists. If God can put so much virtue into the King's hand so as to heal my child, I'll serve that God and that King so long as I live, and with all thankfulness."

Professor Woodhouse, in a letter to Doctor Whitehill, of New York, has given a recital which also leads to show what singular effects can be caused if the imagination be previously and duly prepared for the production of wonders. He says; "At the time that nitrous oxide gas excited almost universal attention, several persons were exceedingly anxious to breathe the gas, and the Professor administered to them ten gallons of atmospherical air, in doses of from four to six quarts. Impressed with the idea that they were inhaling the nitrous oxide, quickness of the pulse, dizziness, vertigo, difficulty in breathing, a sensation similar to that of swinging, faintness, weakness of the knees, and nausea, which lasted from six to eight hours, were produced. Symptoms entirely caused by the breathing of common air under the influence of an excited imagination." The story of Perkins' *tractor*, so familiar to very many—Perkins made his tractors of metal of different colors, and by touching the patient with them cured many diseases. A physician of England made some tractors of *wood*, resembling those of Perkins' in appearance and color. With these he performed the same cure as Perkins had done with his metallic tractors. The delusion was dispelled, and the tractors soon fell into disrepute. How very true is this with many of the deceptions practiced at the present time? Faith is the great thing, and so long as persons have faith, and do not discover the fact that they are being deceived, many will insist that they are being benefitted, while they are only deceiving themselves. Every physician of experience knows how very important it is, in order to treat his patient successfully, that he should have his confidence in his power to cure him. When he has that, he knows only too well that the battle is more than half won. So it is with the countless numbers who swarm around these pretended saviors of mankind. Only believe, have faith, and verily thou shalt be healed. Is not this the secret of cures in very many cases? Most certainly it is.

Did time and space permit we would like to quote at length from the superstitions of the past, and show to what extent they were carried.

To be serious, now, let us away with all the delusions and deceptions of the past, as well as present. Let us strive to do

every thing in our power as members of a great and noble calling to raise the standard of our profession. Let us profit as best we can from the history and experience of the past. Let us see if we can not elevate our profession to a higher plane than ever before. Let us frown down upon quacks and quackery in whatever forms they may be found, for they but degrade the profession and reduce it from a science to a mere trade. Let us beat down *Vain pretenders*, who are mere pretenders, but at the same time acknowledge true merit even though it should appear a little *ostentatious* at times; for as the poet has so aptly expressed it—

“Vessels large may venture more,
But little boats should keep near shore.”

Art. 2—Distension in Morbus Coxarius.

By JOS. G. ROGERS, M. D., Madison, Indiana, Prof. Materia Medica and Therapeutics, Col. Physician and Surgeons of Indiana. Read before the Academy of Medicine, Indianapolis, Indiana.

It is a fundamental principle of surgery, that rest of the part affected is necessary to the cure of inflammation, and that, when no pent up matters act as sources of irritation, and no specific diathesis exist to feed the fire, *rest is all that is necessary.*

This principle is pre-eminently applicable to the management of *morbus coxarius*. In this disease the primary inflammatory process is fostered and increased by the internal mechanical injury due to continued efforts of locomotion in the first periods of its progress, and in the latter stages to the muscular spasm arising from the local irritation, when the patient can no longer use the limb, more than by any other cause. I repeat it, the disease is mainly perpetuated by the pressure and alteration due to voluntary movement of the limb and muscular spasm, and I will say further in this connection, that in a large majority of cases external mechanical injury has been the prime originator of the arthritic inflammation, which is non specific, non-diathetic in its nature. Even in the comparatively rare really strumous cases, careful investigation will ferret out nearly always some almost forgotten fall, or wrench, or bruise, which may be assignable as the exciting cause of the disease, while the peculiar diathesis only stands in the relation of an assistant morbifacient. The

old theory of the invariable strumous causation of hip disease has within the last two decades fallen into disrepute, and the more rational and fact tested principle of its non specific inflammatory origin, is now very generally entertained by those surgeons who have carefully considered the subject.

This view being accepted, the importance of rest as an element of the therapeutic plan, becomes especially evident, for in giving rest the perpetuating causes are eliminated. The particular rest needed is a suspension of pressure and attrition. This can only be secured by *distension* of the joint. Perfect immobility is required in some instances for a certain length of time, but, if pressure and attrition are obviated, moderate use of the limb in locomotion will in many cases be no drawback to the progress of cure; indeed, on the other hand, the general benefit accruing from limited exercise will largely non-balance the effect of the slight irritation due to the movement of the affected parts under distension. If distension and moderate motion can *at the same time* be secured in cases when the inflammation is subacute, the benefits of exercise may be enjoyed without fear of detriment, for the distension will insure relief from pressure and attrition, in short, will afford a practical rest.

Many means have been devised for the purpose of stretching the diseased hip, all more or less useful: but in considering the relations of mechanical surgery to morbus coxarius, it is not my purpose to enter on any exhaustive detail of the various forms of operating which have been used in this condition, only to call your attention to one of the most efficient weapons ever used in the glorious warfare against disease and pain—Sayre's Hip Splint.

The modesty of Dr. Sayre has prevented him from making any very persistent attempt to illuminate the virtues of this offspring of his genius before the profession, and I regret to find that it has not attracted the attention which it deserves, in the West at least. Impressed by its utility, as observed in Sayre's Clinic in Bellevue Hospital, ten years ago, and having had frequent opportunity of proving its merits since that time, in my own practice, I feel called upon to offer my testimony in its behalf, and to insist upon its due consideration as a means of distention superior to all others yet devised.

With this appliance a steel ball and socket joint is substituted for the diseased one, capable of performing all necessary functions: adduction, abduction, flexion, extension and supporting the weight of the body, there being as it were a practical suppression as far as function is concerned, of the hip and its

bones and ligaments. At the same time the splint having its lower point of the attachment above the knee, that joint is left free to perform all of its functions unimpeded; again, it is very light, and not cumbrous, and can be worn under the clothing without being apparent. Properly applied, it needs but little attention, can be worn for many weeks without renewal of the retention dressing. It incommodes no part in any way, and interferes with no function. Moreover, when locomotion is advisable, it is the only appliance that permits it freely, and even in those cases where the severity of the inflammation renders complete rest of the limb necessary, the Sayre Splint is superior in every respect to the pulley and weight, the long splint, or any other means known for producing distention. Of course this mechanical treatment is only one element in the curative plan, yet in the early stages of the arthritic variety of coxalgia before carries of the femoral head, or necrosis of the acetabulum has arisen, this alone, many times, is sufficient to enable nature to bring about resolution and cure.

Even when osseous changes have been superadded to the morbid condition, distention will lessen inflammatory destruction, and the danger of dislocation, by taking off pressure; will relieve pain and nerve wear by preventing muscular spasm, and so generally conserve the patient's force, that the process of supuration, exfoliation, &c., can be well borne often, throughout the long period that sometimes ends in restoration to health. When ankylosis occurs the position of the limb is favorably influenced and spastic permanent contractions of the adductor muscles prevented.

I repeat, then, that distension is needed in all forms of coxalgia, positively curative in the early stages of the arthritic form, and that Sayre's Splint is the best means of securing distention.

The following reference to a few cases will illustrate the emphasis which I wish to make:

Case 1.—Mrs. G——, a farmer's wife, aged 25 years, of strumous diathesis, when first seen had been the subject of hip disease for six or more months; had suffered horribly, for many weeks upon the slightest movement of the limb and from the almost constant spasmodic action of the pelvo-femoral muscles. I found her on a pallet on the floor, where she had been lying for a long time in order to avoid the shocks incidental to a bedstead. On approaching to examine her, she conjured me "for God's sake" not to touch her, as she would rather die than be moved. After much persuasion I was permitted to investigate, and determined the presence of

extensive arthritis with probability of commencing osseous change in the head of the femur. A few days later I again saw her, with the purpose of establishing distension with Sayre's Splint. After a tediously careful effort on my part, and much suffering on hers, I at length secured it to the limb. Then came a triumph which I shall never forget. Elongating the ratchet slowly until the limb was firmly stretched, all pain ceased after a few moments, and I then grasped the foot and notwithstanding the terrified expostulations of the lady, moved it quickly in every direction. This producing no pain whatever, the amazed patient was induced to sit upon the edge of the bed, to which she had been transferred, with the legs pendant; after a moment to stand upon her feet, and finally to lift the healthy limb entirely from the ground, so that her entire weight was borne on the diseased member; or rather, I should say, on the steel hip joint with which I had supplied her, her own proper articulation being practically relieved from all work or weight.

From this date the patient's days of anguish were at an end; she improved rapidly in health and spirits, under proper constitutional management, and enjoyed life tolerably for a year longer; but at this time phthisis pulmonalis developed, and at length carried her to another world. In the meantime the caries before referred to, progressed slowly and culminated in abscess and fistula. The relief from pain and restored locomotion, however, secured by distention, were boons without which death long before would have been happiness. The splint gave her these, and at the same time favorably modified and retarded the osseous disintegration.

Case 2.—R. C.—, aged 15 years, a youth of decided bilious temperament, consulted me with a history of pain and lameness, referable to knee, thigh and hip, during three months, supposed to be rheumatism, and treated as such. Acute pain on striking the bottom of the foot with limb extended, flattening of the nates, obliteration of the gluteal fold, &c., told me a very different tale, morbus coxarius. At this time the suffering was intense; the patient had lost thirty pounds in the previous month, and his appetite too; walked on crutches and then very painfully.

Sayre's Splint was applied in my office. R. C. danced for joy, almost, not quite. He said he thought he could, for the pain was all gone. I advised him not to try, but that he might glorify the occasion by walking home on one crutch, which he did. From this time, wearing the splint day and night, but without medicine or confinement, he improved

rapidly and in six months was in the stubble field after quails. Slight ankylosis remained, but no abscess, fistula, dislocation, or other indication of the inflammation having seriously damaged his bony parts, was manifested. When seventeen years of age, this patient was thrown from a carriage and his hip again severely injured. The inflammation was soon extreme; the discarded splint was again resumed, and the patient confined in bed for 8 weeks. At the beginning, the splint was not all sufficient in relieving pain; opiates were largely required for a week or two, but after that period it again became master of the situation. In three months the reinflammation had almost entirely subsided. For a year an occasional twinge in the knee, however, kept us on the *qui vive*, but after that no symptom of trouble recurred. Ten years have now elapsed, and the patient has nothing left to remind him of his sufferings, save his splint and some stiffness in his hip joint.

Case 3. Miss M. F—, a lymphatic blonde, weighing 140 pounds; had suffered pain in hip, thigh and knee, with lameness, gradually increasing for 18 months. When first seen, she walked with great difficulty and very painfully. Her nights were often sleepless on account of muscular spasm, the nates were flattened on one side, and the fold relatively diminished. My diagnosis was Arthritic Coxalgia. The splint was applied, motion restricted, and cod liver oil, tincture of bark, and the hypophosphites were ordered. The symptoms improved gradually, but spasm and severe pain were obviated from the beginning. After six months the patient was turned out doors, and medication stopped. At the 18th month the splint was left off; the patient was well, without the slightest limp, deformity, or stiffening of the joint. Three years have since passed; the young lady continues well, and thanks providence, the splint, and your humble servant daily.

Case 4. W. F—, 24 years, lymphatic, but of good family; history—had been thrown from a horse, while in the confederate cavalry service, two or three years before I saw him. The conditions observed at that time were those indicative of caries of head of femur; fistula on inside of the thigh pouring forth large amounts of pus, &c. There was great debility and much pain from muscular spasm, degeneration of gluteal muscles, and consequent contraction of adductors. The splint was applied, not expecting much good result, and tonics were given; gradually improvement, however, did occur, and after a few months the patient was able to walk about his farm on crutches; the supuration was but slight, and appetite, general condition, &c., very much better than I even anticipated.

This case might have terminated favorably but for an accidental fall from a horse a year later; this circumstance was the origin of a reillumination of the trouble; osseous changes advanced rapidly, supuration became profuse, pain returned, the other hip became similarly involved, and in a twelve month he had succumbed to the heavy drain and the wear of nerve force.

Case 5. P. D——, a slight boy of 10 years; was first seen by me in bed with pulley and weight, extension apparatus applied. Two or three months before he had received an injury from a fall on the ice, and shortly after an experienced surgeon had made the diagnosis of morbus coxarius, and had directed the mentioned apparatus. The patient had been in bed four weeks when I saw him first; the distension had aborted painful symptoms, but the child was restive under the confinement, was failing in appetite, strength and weight, and was very anæmic. The case having been referred to me, I felt called upon to change the apparatus, and accordingly applied Sayre's Splint. This set the little fellow on his legs and permitted him to use them in doors and out with moderation. The tonics previously prescribed were continued. He soon became cheerful, his appetite returned, and the soreness of the joint lessened, Winter over, he went about in the sunshine, and did well for a year, scarcely any lameness being manifest. The splint was left off after six months. When summer came again, an abscess appeared on the inside of the thigh, which after a very slow ulceration discharged a small piece of necrosed bone; no sign of returning articular inflammation was apparent, however, Cod liver oil and the syrup of lactophosphate of calcium were ordered. The same healed after a duration of three months, and now for a year the patient has been perfectly well, without the slightest relic of the dangerous malady through which he has passed.

Case 6. J. P——, boy of 14 years, subject of femoral coxalgia, with fistula, of two years standing; had been wearing for a year a long splint with no knee motion, and as a consequence had a stiffness of joint, amounting to ankylosis, which made walking extremely awkward and uncomfortable, so much so that the leg was generally carried in front like an inverted bow sprit, while crutches made up for its disuse. Sayre's Splint was substituted for the other, and found much more agreeable to the patient, permitting, as it did, much greater freedom of motion. After a certain period of daily forcible flexions of the knee and ankle joints, some useful motion was restored to these, but long disease had caused so much atrophy of the

limb, that it was but slightly used in locomotion, and the patient could not be prevailed on to throw away his crutch. If Sayre's Splint had been used in the first instance, this unfortunate condition would not have arisen. This case exhibited little change for the three years it was under my observation, as far as the hip disease was concerned, remaining in a chronic, almost painless condition, but during this time Bright's Disease arose, which circumstance is interesting to notice on account of the frequent concomitance of the two. This condition, as very rarely happens, was cured; a year later, however, when spending a winter in the extreme north, he died of acute nephritis.

These cases, selected from about twenty in which I have used Sayre's Splint, are sufficient to illustrate its utility in controlling inflammatory action, and the accompanying pain and nerve wear in every variety of the disease in question, and that it is palliative in all and curative in many.

Madison, Indiana, Feb. 15th, 1875.

Art. 3.—Pneumonia.

A Paper Read before the Sugar Creek Union Medical Society, at Alamo, Ind., by C. L. MYERS, M. D.

By pneumonia is meant an affection of the lungs of an especial inflammatory character. It was formerly regarded, and perhaps was, a mild disease in this country. Of late, however, as I have observed it in this locality and in some others, it has lost much of its mildness, and assumed the character of a formidable adversary of the practitioner. It now runs very frequently a dangerous and fatal course, requiring great medical skill and careful nursing. For this reason much attention has been devoted to it of late—its symptoms have been more carefully drawn and defined, and the causes of inception more carefully studied. Notwithstanding the great labor expended in searching for the true cause, much is yet a blank. Pneumonia, like other diseases, can never be skillfully medicated or nursed, till a better idea is obtained of its causation. In general terms, it may be said that it assumes either of two forms, the sthenic or asthenic. As I shall show further on, the treatment depends much upon the form. It is probable that in earlier years the sthenic form was the much more common character. Now, however, the asthenic type is very frequent.

The causes that act in producing the one or the other are quite different. The sthenic type exists principally in hyperæmic or plethoric persons. In such persons a great quantity of blood is thrown at each systole. The arteries and veins are full, and, so long as nothing untoward intervenes, good health exists. If, however, the body is exposed to severe cold, especially if it be prolonged and combined with over-exertion, there necessarily follows more or less congestion of the lungs. The balance of this great amount of blood and fluids being destroyed, and the strain on the internal parts increased, febrile action sets in. Sometimes over-exertion alone may account for inflammation, inasmuch as the nervous force is weakened and the blood is not driven through the pulmonary vessels with the speed natural in health. Hence it is that persons laboring hard all day at some toil to which they are unaccustomed, will be seized at night with burning fever, pain in the side, cough, etc., so characteristic of pneumonia. In sthenic pneumonia, the fibrine of the blood is said to be increased. It is easy to see that there is more fibrine in the pulmonic circulation, for there is more blood. There is more oxygen in the same space of cold air than in air at an ordinary temperature; for, so to speak, the air is congested. Nature is conservative here as elsewhere, and as the fibrine is tenacious, adhering closely to the arterial walls and impeding the circulation, it will escape from the arteries, taking one step into the air cells. The result, then, consolidation of the air cells, is simply an effort on the part of nature to rid the blood of a superabundance of fibrine. The tumefaction of the pulmonary parenchyma, and the pressure of the consolidated products in the air vesicles, with the loss of space in these vesicles, brings on the pain, dyspnoea, rusty-colored sputa, etc., of pneumonia.

But the pathology of the asthenic form is quite different. This phase of pneumonia often comes up in the course of the continued fevers, as well as idiopathically. The blood is not loaded with fibrine. On the contrary it is poor, thin, weak, and watery. This latter condition of the blood is now very common in pneumonia. Bad blood is just as apt to produce congestion and inflammation of the lungs as blood loaded with fibrine. As already stated, the rapidity of the circulation depends very much upon the amount of nervous force. If the nerves of a part are weakened, the blood vessels to which they are distributed become relaxed and are thrown off duty, and hence the blood flows lazily along, and congestions ensue.

Pure, unadulterated blood is essential to the existence of nervous force and energy.

The bite of the snake, the effects of phosphorus, and the poison of arsenic, have been known to produce pneumonia. Now, this is manifestly through the agency of bad blood. In the same way those congestions so common in typhoid fever may be explained. Pneumonia may supervene where the blood is neither excessive in quantity or poisonous in quality. Persons will often be attacked when no particular exposure was undergone, and when general good health existed. In such cases there is no doubt a peculiar change of nervous influence brought on by climatic causes apparently not dependent on sudden change of temperature. A certain degree of cold is requisite, for pneumonia is peculiar to the winter and spring months. In view of what has been said, it is well to investigate, when called to a case of pneumonia, the peculiar nervous condition manifested. Pneumonia occurs at all ages, but mostly in the young and middle aged. The right lung is the one most frequently affected. Some physicians go so far as to say that no true pneumonia ever occurred where the left lung is first involved; that such cases were more pleuritic than pneumonic.

I think it probable that when the left lung is first involved there is a greater tendency to pleuritic effusion, but there can be no doubt that pneumonia, pure and uncomplicated, may exist, when the inflammation only exists in the lower lobe of the left lung. I have observed that in half of all the cases under my care the affection was limited to the right side; the left lung was involved exclusively in one-fourth; the remaining fourth had double pneumonia. It has been observed that double pneumonia is more likely to ensue where the left lung is first affected. Two-thirds of the cases alluded to above first were affected in the left lung. The diagnosis of pneumonia is not always easy, even where the physical signs are well understood and recognized. A physician is often called to see a patient suffering with fever, but at the first visit it is often impossible to tell whether the patient is affected with lung fever or remittent fever. I speak of this locality, where there is a great deal of malaria. To my mind, the inception, signs, and symptoms of asthenic pneumonia closely resemble remittent fever: In both we have the coated tongue and bad breath; we have pain in the back and in the legs; there is intense headache, with high fever; these symptoms have been ushered in with a chill; the pulse is fast and weak; except in the head and back, no particular pain is complained of. By close questioning you may get the patient to complain of slight uneasiness under the ribs of either side, but this is so slight that it

might be easily mistaken for slight congestion of either liver or spleen, which latter is so common in remittents. You may have several patients in your practice at this time suffering with remittent fever. The first symptoms with them were almost precisely like this—as near, apparently, so as could be imagined. You will very probably be required to give a diagnosis, and of course you do not hesitate in pronouncing the malady intermittent fever. You prescribe antiperiodics, diuretics, and diaphoretics, and go away feeling satisfied. You have been unable to discover any particular symptom belonging exclusively to pneumonia. There has been no cough, or, if so, very slight, not more than is common in some malarial fevers. Auscultation and percussion reveal nothing. There is no rusty-colored sputa, or even no sputa at all. Next day you find the temperature perhaps down to 101° , and sweat some through the night. Pulse ninety in the minute. The patient feels better. You prescribe as before, with the hope that the disease will soon disappear. You furthermore feel that your diagnosis was correct. If the friends ask you to-day for the diagnosis, you will have no reason to change your opinion. But how is it next day when you return? All is changed. The breathing is accelerated, there is considerable cough, and painful at that; pain in right side on deep inspiration, the sputa being red and very tenacious. The nurse intimates that the patient surely has lung fever instead of remittent. You believe it, too. It is a plain case. Considerable rattling is heard over the region of the pain; percussion reveals dullness of one point; you discover red spots on one or the other cheek; the febrile action is great, the thermometer indicating a temperature of 104° ; pulse excited. What becomes of your diagnosis already given two days before? You must simply take it back, or plead a complication. The former is ruinous, and the latter, is it consistent? To say the least, I believe that in such cases as now described the malarial element exists to a great extent, and forms an important complication. Of course when there is no malaria, the regular pneumonic symptoms nearly always prevail. Such symptoms no sensible practitioner can overlook; but where malaria prevails, the diagnosis at first is often next to impossible. It might be inferred, therefore, that where malaria exists the adynamic or asthenic form of pneumonia is more prevalent. These symptoms of pneumonia are quite different, therefore, from those given in the books of twenty or thirty years back. If you expect to find the symptoms of pneumonia as laid down in Wood or Watson, or even in Flint, as invariable, you will be very badly mistaken

Especially should young practitioners be on the look-out. It would be well, therefore, to repeat that there is great danger in winter and spring of mistaking the two forms of fever in their inceptive symptoms.

Now, in regard to treatment. It manifestly is regulated according to the form of the disease. The sthenic type will oftener get well by itself than the asthenic. Some old woman, good at making teas, will probably treat the majority of cases better than the doctor. Now and then, in a full-blooded person, when great congestion is obvious, I believe the old fashion of blood-letting is good. This is mechanical relief, and it is the testimony of many of the oldest physicians that instantaneous relief often follows. It is required when those causes operate that I spoke of in the congestive form. Local blood-letting, by cupping, may be better in many cases than phlebotomy. The nauseants and expectorants are then useful, such as ipecac, antimonial wine, etc. In the second stage, sorbefacients may be used. Mercury is perhaps one of the best remedies known to hasten the absorption of the products from the air cells. This opinion is almost universal among men of experience. The good done to the lungs over-balance the deleterious action on the general body it is supposed to produce. Of course its action should be carefully guarded, and the remedy withdrawn at the proper time.

The treatment necessary for the other or sthenic type is different from that just given. It is with this form of the disease that great skill and judgment are required. Frequent action of the heart calls for sedative remedies, or those that have a tendency to lessen its action. Unless there is great prostration and weakness, the *veratrum viride* may be given. If it is properly watched, it is very useful; but if it produces too great sickness or nausea, it must be withheld. *Digitalis* is also very useful through the course of the disease, with the same precaution. If there is great headache or backache, and considerable volume to the pulse, the preparations of *gelsemium* are generally useful. This drug seems to have a happy effect in calming the nervous system. In the early stages, where there is considerable prostration, and where the active stimulants can not be well borne, the preparations of *serpentaria* or *Virginia snakeroot* are useful. *Serpentaria* acts as a mild stimulant. *Carbonate of Ammonia* is one of the most reliable remedies in pneumonia. It acts as a splendid nervine stimulant—it gives vigor to the nervous system. Give it in as large doses as can be well borne. It need not be given continually throughout the twenty-four hours, but allow some in-

terval, say six or eight hours, without using it. Milk is the best menstruum in which to give it. Milk is also good as food.

Muriate of ammonia is useful in the stage of resolution, as it is thought to hasten it as well as to act favorably upon the secretory organs. In the low adynamic form of pneumonia, where the pulse is as frequent as 130 or even 150 per minute; where the respirations are forty or more and labored; where there is great restlessness and sleeplessness, and where the skin is inclined to a dusky hue, alcoholic stimulants are indispensable. The quantity to be given depends upon the urgency of the symptoms. I know of no disease wherein the use of whisky or wine produces so much good in a short length of time as in the one under consideration. Some persons can drink a pint or more in twenty-four hours, and improve with its use. Children can take amazing quantities. A tablespoonful or more may be taken every hour in bad cases. It is best, as a general thing, to give it in milk. Carb. of ammonia may be added, and this use of stimulants kept up for several successive hours. I have often seen patients tormented with dyspnoea almost to distraction, the pulse 150 per minute; where sleep, though so much coveted and desired, could not be obtained, and where death seemed to be inevitable, rapidly change to more ease, so soon as a large drink of whisky has been taken. The respirations would be lessened in number, the dyspnoea would not be so unbearable, and soft, sweet sleep would soon be announced by the well-known murmur of slumber. All physicians who have used stimulants in bad cases know this, for they have seen for themselves. But stimulants certainly must not be given indiscriminately. The effect must be watched, for now and then one will not be able to bear near so much as the general number, and even in some it may do positive harm. Alcoholic stimulants, to my mind, are not so efficient if nausea and eructations annoy to any great extent after being swallowed. I think it will be found that in those cases where whisky or brandy acts so like a charm it does not sicken, or, in common phrase, "turn the stomach." If whisky is so disagreeable in large doses, they will have to be diminished, or perhaps it would be better to substitute wine. It seems to be the custom to give large doses of sulphate of quinia with the stimulants. Quinine may aid very much in giving tone to the nerves, but it is very probable that where it proves so useful, malaria is the producing trouble, for, as I have said, these low forms of pneumonia are often caused by malarial element.

As to external applications to the chest, it may be said that anything that will give heat and moisture should be constantly applied. Blisters may be applied when the lobe becomes solidified, and not before. These act by concentrating the blood nearer the surface, and thus relieve the congested condition of the lung beneath. It is not to be forgotten that the preparations of opium should be diligently used if there is much pain. Keep the room well supplied with good air. This will very forcibly become apparent, especially when dyspnœa is well marked. Patients will then call for it, and it should be supplied. Nurses are often too fearful of giving the sufferer "cold." These ruinous ideas should be dispelled by the doctor.

Alimentation is one of the most important items in low forms. In giving plenty of food you feed the person, and not the disease, as formerly supposed. The kind of food will vary. All persons will not eat beef-essence, and even if they would it is not always immediately obtainable. There are certain fundamental principles to be observed in ordering this or that nourishment. See if it is good to eat; see if it is concentrated; see if it is digestible; see that its preparation is characterized by habits of cleanliness and care, and that the same way of cooking or preparing is not followed. It is a mistake to suppose that the food should always be prepared just in the same way. If this rule of cooking is observed, it will not be long before the patient will loathe what two days ago was agreeable. Lastly, keep yourself free from excitement, and, if possible, allay all anxiety on the part of patient or friends. Seek for anything likely to do good. Watch the turn and course of the disease, especially having your mind upon complications, and reserve your prognosis.

Art. 4.—HEART DISEASE.

By Dr. J. M. HARRIS, of Yellow Springs, Ohio; being the substance of papers read before the Clark County Medical Society, at its regular sessions for November and December, 1875.

Of all parts of the human body, the heart is the part whose services can never be spared; any other organ, or group of organs, may go on a strike for a time; or one or two may rest while others do their work imperfectly, or the work may go undone, without very serious detriment to the system. The

stomach may force its contents into the bowels just as it was received from the mouth, and digestion will not be a total failure, or may empty itself by a reverse action, and say to all the body: "Fast till I am well!" and the body be the better for such treatment.

But not so of the heart. Death enters and destruction begins the moment it stops. Impair its action by any means and the whole frame suffers at once; the muscles cannot contract; the liver and kidneys cannot perform their allotted tasks; the brain itself cannot think without the constant and pressing care of this all-important organ. With what diligence then should we, as guardians of the body, study it. Its normal sounds should be as familiar to our ears as the human voice, and its warning murmurings of disease should be persistently interrogated until they reveal us their true import. Here is a "Sign Language," which we must make tell us of future prospects for our patients, and direct us to the best use of our remedial agencies.

The heart is virtually a double organ. The right and left sides might be called the right and left hearts. If you should take two hollow, conical, muscular organs, the size of the ventricles of the heart, the walls of one being three times as thick and strong as those of the other, and bring their sides together with gentle pressure, the thinner wall would be found to lap itself around the other, and take the shape of the right ventricle. Then, if you could set up adhesive inflammation, you would have a union representing pretty correctly the ventricular portion of the mammalian heart. Moreover, these two hearts have distinct functions. The one deals with impure blood only, and drives it through a small portion of the body, not for the nourishment or benefit of the body, but for the benefit of the blood. The other deals with pure blood only, and drives it through the whole system, not for the improvement of the blood, but for nourishment of the tissues through which it circulates.

Occasionally, a heart is found whose two sides so far assert their independence of each other as to beat at different times, causing all the sounds of the organ to be double.

Physical diagnosis, by means of auscultation and percussion, has brought it within the power of every physician, whose hearing is normal, or nearly so, to obtain a pretty correct knowledge of most of the diseases of the heart; without this, diagnosis could only be probable at most. Yet, for the medical student, there is perhaps no greater disappointment than he is sure to experience on his first efforts at ausculting the diseased

human heart, and the more thoroughly he has studied from books, the nature and relative times of murmurs, the greater his disappointment. And why is this? Chiefly from two causes: from the want of thorough acquaintance with healthy heart sounds in connection with the condition and elements which produce them, and from having studied the various murmurs singly, as they would occur in a heart, healthy in every respect, save that which produces the murmur, which is usually not the case. To correct the former, a thorough knowledge of and familiarity with the healthy heart is indispensable. If we are familiar with the natural sounds, we may easily detect adventitious sounds; but to locate the lesions which produce them, we must also be familiar with the several causes of the healthy sounds. It is an easy matter, theoretically, to follow the blood in its course, from its entrance into the auricles to its exit from the ventricles, when we have our own time to do it in. But to place the ear on the chest, and go through the process with equal accuracy in the 1-80 or 1-100 part of a minute, is quite a different thing, and requires no small amount of practice. But to be able to do this with ease and readiness, at every part of the chest, where the sounds are distinctly heard, and to know from each point which sound is most intense and highest in pitch, is essential to successful auscultation of murmurs incident to the various lesions to which the human heart is liable.

Heart murmurs, when caused by disease of the heart, may be from obstruction to the blood going out of the cavities, or inability of the valves to keep it out when it is being acted on by the vessels or cavities, into which it is forced. Either of these conditions require increased work of the heart, or its work must be inadequately performed, and will lead to at least one of the three following conditions: Hypertrophy, Dilatation or Distention. Distention is properly applied to that condition of the heart which obtains, when it from any cause receives for a time more blood than it discharges, and may occur in a healthy heart from violent emotions or exercise. If, however, this be long continued, or frequently repeated, it may result in a weakening of the heart's walls, and thus cause permanent distention or dilatation. *Hypertrophy*, or overgrowth, comes of overwork. If the blood must be driven over roughened valves, or through a diminished opening, or if the valves of the opening are unable to prevent, during the diastole, a return of a portion of the expelled blood, the heart must work harder to keep up the circulation. This work leads to a corresponding growth until the limit of development is

reached. Then, if muscular power be equal to the demand for it, no further progress will be made. But should the heart, after this increased growth and strength, be still unable to do its work properly, exhaustion and gradual dilatation must be the result. The heart still grow larger, and weaken with every failing effort to empty itself, until death, the inevitable result, follows.

Dilatation, then, is one of the chief things to be dreaded. Distention is temporary, while hypertrophy is conservative; and may, long before it reaches its limit, make the heart as good as ever, at least for ordinary occasions, though each systole be accompanied by a loud murmur. The significance of murmurs, then, is the important thing, and is *the* problem to be solved in each particular case, though other factors help as much to determine our prognosis, and to give correct treatment and advice. The causes of Heart Disease are many, and often obscure. Acute articular rheumatism is one of the most frequent, especially in early life.

"There were treated at Middlesex Hospital during 1870, one hundred and twenty-three cases of acute and subacute rheumatism. One hundred and eight of these were admitted during the year, of which three died and thirteen were still under treatment. Of the number left, reliable data show seventy-eight with cardiac trouble. Recent heart trouble occurred in fifty of these."—[*Middlesex Hospital Reports, for 1870.*

Dr. Thomas B. Peacock, Senior, physician of St. Thomas' Hospital, from a careful study of eighty-seven cases of acute rheumatism, among other conclusions, gives the following :

"The greatest risk in the course of the disease arises from cardiac complications. Over 33 per cent. of the whole number of cases showed more or less signs of it, and in most instances the heart was found affected at the period of admission."

"Cardiac complications are most frequent in early life, and are more frequent in the male than in the female.

"The cardiac mischief is not directly proportional to the severity of the fever, In a mild case the heart may become affected, while in a severe case it may remain entirely unaffected.

"Pericarditis is most common in the slight, endocarditis in the severe attacks."

Pneumonia and pleurisy are doubtless frequent causes of heart trouble, from the nearness of the inflamed parts to that organ.

Such are the causes of inflammatory troubles of the heart, such as are most apt to occur in early and middle life, and

affect not directly the muscular walls of the heart, but its lining membranes and its valves. They act rapidly; often in a few hours serious and irreparable mischief being done.

But there are other derangements, slow in their development, yet none the less serious, and deserving our attention. Fatty degeneration may occur here as it may anywhere else. After death from this source, the heart will be found flabby; and to flatten itself on the table like a bag of water. It generally presents patches of light colored or yellowish tint on its cut surface; breaks down more or less readily when pressed between the thumb and forefinger. The microscope reveals fatty granules, (not cells) very minute, and situated inside the sarcolemma, while the striæ, so characteristic of healthy, muscular fibre, are few in number, or wanting. If a portion of the heart be cut up fine, and subjected to the action of sulphuric ether for a few hours, and the ether then evaporated, fat will be found remaining.

The symptoms of this trouble are not well marked until considerable progress has been made, and are not then clearly diagnostic. Dyspnœa on slight exercise; feebleness of the pulse, with occasional intermissions, with other evidences of imperfect circulation.

Another pathological condition of the walls of the heart, which, it seems to me, may be of frequent occurrence, is described by Cornelius Black, in the *Medical News and Library*, for 1873. He says:

"It is, perhaps, difficult to adopt a term which shall sufficiently express the true nature of this disease; but as the changes, produced in the heart are manifestly due to the action of a hyper-carbonized condition of the blood, the term 'carbonized heart,' may serve the purpose of distinguishing it from other affections of this organ. It has no connection with inflammation, and it is distinct from fatty degeneration."

At the close of my other paper, I was quoting from the same series of articles of Dr. Black, giving an account of his experience with newly hatched trout. He observed with a microscope the action of the heart, under oxygen and varying proportion of carbonic acid gas and oxygen. In every case the effect was the same: as the carbonic acid increased, and the proportion of oxygen decreased, the heart acted more and more slowly, manifesting less and less sensitiveness to the presence of blood in its cavities, finally allowing itself to be filled, and the blood to flow out at the great vessels, without scarcely an effort at contraction, until death ensued, and the blood in the arteries continued to flow after it had ceased to flow from the ventricle,

until the arteries, large and small, were emptied of blood. "No doubt," says Dr. Black, "very similar phenomena occur, under similar circumstances, with the human heart." There is a sense of fulness and oppression in the cardiac region, dull pain across the temples, nausea, vertigo, cold and clammy sweat, extreme thirst, fainting, and finally death. Such were some of the effects experienced by the unfortunate Englishmen who were confined over night in the "Black Hole" of Calcutta.

In addition to the evils caused by carbonic acid, in badly ventilated apartments, is added that of the exhalations from the body. If two pigeons be placed in two air tight glass receivers, each having a capacity of one cubic foot, one containing pure air and the other pure carbonic gas, the different effects on the pigeons is quite striking, as well in the final as in the immediate results. The pigeon in the carbonic acid jar at once manifests great uneasiness, showing all the symptoms of impending suffocation. Soon it falls on its side, stretches its legs convulsively, closes its eyes and is still. If now the vessel be quickly removed, and pure air allowed to take the place of the carbonic acid, the symptoms are precisely reversed, and the pigeon's recovery is as rapid as was its apparent death, and so far as we are able to judge its recovery is complete.

While this is transpiring, the other pigeon in the other vessel seems unconcerned. Gradually, however, symptoms of uneasiness manifest themselves, and grow worse and worse. It tries to get out, breathes in a panting and hurried manner; becomes covered with moisture, and shows signs of extreme prostration. If it be kept in forty to fifty minutes it will still be able to stand, and its condition seems infinitely better for recovery than the other. Now remove the jar. Instead of the rapid improvement seen in the other, we see only that it ceases to grow worse. After a considerable time the breathing grows easy, but if it be made to take the least exercise; the panting and exhaustion speedily return. If the experiment has not been carried too far, it will, after many days, recover.

Dr. Black says it is certain, from his experience: "That confinement to an atmosphere impregnated with carbonic acid, even to the extent of one per cent. only, quickly deranges the functions of the heart, and ultimately deteriorates the tissues themselves of that organ."

When we recall the fact, that with each respiration we exhale an atmosphere containing, on an average, *four per cent.* of carbonic acid, we cannot wonder that our increasing civilization, with its air-tight and crowded dwellings, increases fearfully the amount of heart disease, and the number of sudden deaths.

I believe that very many deaths occurring in the progress of fevers, and in such diseases as tend in themselves to recovery, especially in patients who have passed the meridian of life, would not occur if the heart were in perfect condition.

Art. 8.—Laryngoscopical-Instruments.

Read before the Cincinnati Medical Society, by BERNARD TAUBER,
M. D., Cincinnati, Ohio.

The marvelous and enduring successes attending the art of laryngoscopy only date as far as the time of Tuerk or Czermak, who first published their results in 1858. It has been asserted that laryngoscopy only serves as a means of diagnosis, but experience has taught us that since seventeen years the "technique" of laryngoscopy and laryngo-surgery has developed to such perfection that there is hardly a disease of the larynx which cannot be recognized and generally relieved.

The means employed to attain the end in view are a mirror, reflector, and a good light. I do not intend, gentlemen, to give you the history of laryngoscopy, it would tax your valuable time and patience too much, my aim this evening is to speak on the "Instrumentarium" used in laryngoscopy. To prevent any confusion I will exhibit before you this evening only the instruments employed in the "Vienna Clinics." I have other instruments by Prof. Tobold, Von Bruns, Fauvel and McKenzie, which I shall take pleasure in exhibiting to you on some other occasion. I will say, however, that they are almost all constructed on the same principles.

Tuerk's laryngoscope, which I hold in my hand, is generally employed; it is a round plain glass mirror, attached to a hard rubber or wooden handle, at an angle of 120° ; they range from Nos. 1 to 5; Nos. 1 and 2 are generally used for rhinoscopical examinations. As the light of the sun is not always available, the use of artificial light is more common; in order to concentrate these rays, a concave mirror, such as this is generally employed. Tobold uses a combination of lenses; the great objection to this apparatus is, that the slightest movement of the patient will disturb the focus, and thus interrupt our observation. The advantages of the concave mirrors are their portability, the facilities with which they are adjusted, and their comparative cheapness. This reflector has a ball and socket

attachment to a band, by means of which latter it is strapped around the head; this allows the reflector to be moved in every direction. Gas, Petroleum and Magnesium light are best adapted for artificial illumination, and circular burners should always be employed.

For the "local treatment" we employ "souffleurs," pulveri sateurs, camel-hair brushes, sponges, and self-suction syringes; for applying solutions to the larynx, camels hair pencils, of different sizes, cut square to the end, and screwed on to a handle at an angle of from 90 to 120°, will be found most convenient. Every specialist should have two sets of instruments, a white handled set for syphilitic, and black handles for non-syphilitic cases. I employ solutions of nitrate of silver from 10 to 120 grains, to one ounce of aq. dist., sulphate of copper, sulphate of zinc, alum, tannic acid, iodine, etc. To insufflate powdered substances, such as alum, tannic acid, morphia, nitrate of silver, etc., I use the insufflateurs of Stoerk and Schroetter; the latter has a peculiar curve which modification prevents the obstruction of light. Liquids are also applied to the larynx in the form of a very fine spray. Schnitzler's apparatus is the most convenient and cheapest; it has several mouth pieces to direct the medicated spray straight downwards and upwards. I generally medicate it with alum, tannic acid, sulphate of zinc, carbolic acid, salicylic acid, etc. For the inhalation of caustic solutions, it would be necessary for a patient to use a mask, and therefore cannot recommend it. To inject fluids into the larynx I employ Schroetter's camel's hair pencil, and Stoerk's self-suction syringe; the latter can also be advantageously used as an anterior nasal syringe. The injector is filled by pressing the air out of the rubber ball, and inserting the point of the syringe into the solution to be used, the injector is held between the thumb and second finger, like holding a pen, and the index finger remains free to press on the ball. For applying the solid nitrate of silver to the larynx, I use Stoerk's laryngeal cauterizer, consisting of a silver wire attached to a wooden handle, bent at the same angle and same length as the laryngeal brush; the wire is heated and dipped into some nitrate of silver fused over a spirit lamp. Those who are afraid to use the open laryngeal cauterizer, I would advise to employ Schroetter's concealed porte-caustique; the caustic remains concealed till brought to the part desired to be touched, when by moving the spring in the handle upwards it is made to protrude; the concealed part in the tube has at one side a groove where the nitrate of silver is fused in, and can be rotated, thus the instrument can be used for direct and lateral canterization.

To apply the electric current directly to the vocal cords, I use the laryngeal galvanizer, of McKenzie of London, and dare say it is the instrument to be employed in cases of aphonia, and all other cases where electricity is indicated. The important feature in the laryngeal galvanizer is, that the current does not pass beyond the handle till the end is in contact with the vocal cords. The instrument is held between the thumb and second finger, and when the end is in contact with the vocal cords, the operator, with his index finger, presses on the spring on the handle, and the electric current passes through the larynx to the skin externally. To lift the epiglottis, or to sound the larynx in cases of growths, this laryngeal sound of English rubber, which is bent at the same angle as the brush, is used.

For scarifying the mucous membrane of the larynx, for opening abscesses, or for divining laryngeal growths, we have a laryngeal lancet. It consists of a small knife (have several with different cut edges) which is contained in the tube and concealed in its duck-billed extremity, till forced out by pressure on a spring in the handle; the tube which contains the knife can be rotated to an angle; the tube has a screw, by which the operator can lengthen or shorten it. I have to call your attention to the practicability and economy of these tube instruments; only one handle being necessary for all the intra-laryngeal instruments. Local anæsthesia of the larynx is often employed to remove growths from the larynx. The following method is adopted by Professor Schroetter, of Vienna:

On the evening before the operation the larynx is penciled 10 to 12 times with the mixtures of

R̄ Morphia. Mur., grs iij
 Alcoholis, ʒ j
 Chloroformis, ʒ ss M.

The patient is then directed to swallow small pellets of ice. The next morning, an hour before the operation, the following solution is 10 times applied to the larynx:

R̄ Morphia. Mur., grs xii
 Aq. Dist., ʒ ij M.

Immediately after each application with the morphia, a solution of tannic acid, according to the following formula, is applied:

R̄ Acidi Tannici, ʒ i
 Alcoholis, ʒ i
 Aq. Font., ʒ vi M.

The result of this procedure is complete local anæsthesia, and an hour afterwards the growth is removed without difficulty.

The removal of growths by the aid of the laryngoscope is a great triumph in the history of surgery. Certain kinds of instruments are better adapted for certain kinds of growths. Thus the sessile growth, the most common one in the larynx, can be most easily removed with forceps; small fibromata may be treated by division of their base, and then by evulsion; cystic tumors require incision; pedunculated growths by the use of wire loops, *écraseurs*, guillotines; and papilomata are generally removed by evulsion, and then the application of caustic to the part. Much depends on habit, and surgeons are apt to give undue credit to the instrument which they are most accustomed to use. In my practice I employ Bruns', Tobold's, Fauvel's, McKenzie's, Stoerk's, and Schroetter's forceps; of the four first named some open from side to side, others antero—posteriorly. The tube forceps are those most generally applicable, and especially for such cases where the larynx is small, and the throat irritable. The blades of the forceps are made to close by being drawn within the tube. You will notice also a peculiar curve in Schroetter's instruments, this serves that the hand of the operator does not obstruct the light. I exhibit to you now forceps for the crushing, cutting and evulsion of growths, of different sizes and different cut edges. Scissors are of very little use for the removal of growth. Occasionally where it has not been possible to cut through a growth, incisions have been made into its structure. The perpendicular blades can also be used to remove foreign bodies from the larynx, as pins, needles, fish bones, etc. Whilst on the subject of the removal of foreign bodies, I beg leave to mention to you that I have reported a case on November 13, 1875, to the Academy of Medicine, which stands as a "*unicum*" in the history of laryngoscopy. It is reported in the Clinic under the head: "Removal of a bullet from the larynx." A gentleman, *æt.* 38, consulted me a few weeks ago, stating that he was shot in the neck at the left side in 1863, (twelve years ago) the surgeons at the time could not find the bullet. The patient complained of great pain in swallowing, shortness of breath and aphonia. On laryngoscopic examination I found the left sinus pyriformis covered over. I introduced the laryngeal sound to this point, and met with a firm resistance. I then introduced the knife-cache and made an incision over the point of greatest resistance; the knife came in contact with a very hard body. I was justified

now in introducing the forceps, and on the fourth attempt I removed the bullet here discovered. Immediately after the removal of the ball, the patient swallowed with ease, and rapidly regained his voice. The bullet which I exhibit to you is one fourth an inch in diameter, one half inch long, and has a conical extremity.

The ecraseur now in my hand is that of Stoerk's; the fine wire is concealed in a loop of rigid metal; it has almost the character of a guillotine, except that a wire is used instead of a cutting blade; division of the growth is done by a quick cutting action. The same instrument can be employed as a guillotine; different sizes can be used. The objections to its use for laryngeal growths is the difficulty to press the instrument sufficiently against the parieties; therefore only small portions of a growth can be sliced off.

It requires a long use of the instrument before an operation can be skillfully performed with it. Professor Stoerk uses this guillotine exclusively and successfully.

Galvanic cautery may be carried out either with loops or with knife-like instruments. I have seen applied and applied myself the batteries of Middeldorph, Voltolini, Von Bruns, etc., and cannot fancy their construction. This agent does not pay to employ it in laryngoscopy; the battery is almost always out of order, and as far as experience goes, no special advantages are derived from its employment.

In cases of stenosis of the larynx, due to swelling of the mucous and sub-mucous tissues in zymotic diseases, and especially that produced by cicatrization of synchilitic ulcerations, we were formerly compelled to resort to tracheotomy; however, by means of these hard rubber laryngeal dilators, of various sizes from Nos. 1 to 6, constructed by Prof. Schroetter, introducing them daily, or twice a day, leaving them in the larynx for 25 to 30 minutes at a time, the necessity for tracheotomy will be generally obviated, and the stenosis will yield to systematic artificial dilatation, the patient breathing through the tube.

Schroetter has devised also tin cylinders, of several sizes, about an inch and a half long, to dilate strictures of the larynx; or a stenosis after tracheotomy, was performed without benefit to the patient; they dilate the larynx mostly by their weight. These cylinders have a brass stem running through them lengthwise, ending in a knob.

In using it a strong silk thread fastened to the eye is passed through a conductor, shaped like a catheter and drawn tight, so that the cylinder is brought up to the extremity of the in-

strument. After oiling, the cylinder is then by the aid of the laryngoscope, passed down and lodged in the larynx., while the knob is seized by a forceps which is screwed on to the knob that prevents the tin cylinder from falling down into the trachea; the conductor is now withdrawn, and the thread hangs from the mouth, and can be fastened anywhere out of the way, for instance to the ear. The cylinder may be removed once or twice in 24 hours. The patient is able to eat, to drink, and to breathe, but cannot speak.

For constrictions of the trachea caused by diseased conditions of the walls of the trachea, and the patient suffering from dyspnoea, and going on rapidly to asphyxia, Schroetter has devised a very ingenious instrument, the *Euftröhren-modellir bougie*, which remedies this affection. It consists of a tube of hard rubber, 16 inches long, with a curve so that the operator can introduce it through the glottis, and further on into the trachea. This tube contains a metal rod which is movable; to the end of it, a hard rubber hollow cylinder, holding a wax bougie is fastened. Its introduction through the glottis requires an assistant to punch it downwards; its length reaches the lowest end of the trachea to the bifurcation. The introduction of this bougie meeting with resistance, causes apnoea; but this is no contra-indication for its application, as the patient from the nature of this affection is used to attacks of apnoea; and further, it can easily be removed from the trachea. On examining the wax bougie, which is generally covered with mucous and blood, we will find an impression of the constriction or stenosis of the tracheal wall; the patient will then expectorate freely mucous tinged with blood. Eight or ten introductions of the bougie will remove the apnoea. I saw at the hospital at Vienna a female patient suffering from apnoea due to constriction of the walls of the trachea, so severe as to compel her to keep her bed. After six to eight applications of the *Modellir bougie*, she was enabled to walk fast without any difficulty. I will state, however, the bougie caused suffocatory spasms during its employment.

Art. 6.—Case of Ruptured Uterus—Recovery.

By S. W. FULLER, M. D., Bellefontaine, O.

Mrs. H., a stout Irish woman with pendulous abdomen, the mother of five children, was taken in labour in the early evening of February 27, 1867. Her labors, with one exception, have been unusually easy and rapid. That immediately pre-

ceding the present, as she informed me, had been tedious and very painful; but I did not learn that there had been any malposition or other serious difficulty. I was called to see her about 9 o'clock (same evening). The os was well dilated, waters evacuated; the head presented in first vortex position; pains irregular, and the patient restless; the child's head resting at the superior strait. She was placed in proper position to correct as far as possible the anterior obliquity of the uterus; still the labor made no progress until near 3 o'clock a. m., when the head was found to be entering the superior strait, and it was hoped she would be speedily delivered. Suddenly, however, the proper pains ceased, and she complained of severe suffering at the fundus uteri; pulse now became rapid, and patient extremely restless. A rupture of the uterus was at once suspected, and a messenger was despatched for my forceps, which happened to be in the possession of a neighboring physician, who was requested to come to my assistance. Our attempt to apply the forceps satisfactorily failed, owing perhaps to too much haste and some degree of awkwardness; but the head, not being tightly wedged in the pelvis, readily receded above the brim, bringing the contracting os down in front of the head; the latter being easily moved about, showing that there was no resistance from above. Under these circumstances we determined to abandon the forceps, and I proceeded to turn and deliver by the feet. This was accomplished in a few minutes, although the lower extremities and body of the child were entirely within the abdominal cavity of the mother; but no serious difficulty occurred in withdrawing them. Immediately after the delivery the hand was reintroduced: the placenta was found lying loose in the uterine cavity, and was withdrawn. The hand was passed onward into the peritoneal cavity, and search made for any clots that might have formed there. Brisk frictions were now made over the womb, the hand being still retained in the rent, in order to prevent any intestinal fold from being caught in it and strangulated. The uterus speedily contracted, closing up a most extraordinary rupture, which extended through the body of the left side, the center fundus, and a small portion of the body of the right side. The patient was now put to bed and made as comfortable as possible. Reaction soon came on, attended with high fever, and severe abdominal inflammation. This was combatted with arterial sedatives, calomel and opium, counter irritants, etc. Mrs. H.'s convalescence was tedious, but at the end of seven weeks she was able to sit up. Her health now improved much faster, so that in a few weeks

later it was quite good, with the exception of severe headaches and constipated bowels; the latter difficulty depending, probably, on inflammatory adhesion of the bowels, limiting their peristaltic action.

On the 26th of May, 1869, 1 o'clock A. M., I was aroused by a female messenger, who informed me Mrs. H. "had a dead baby in bed with her;" upon arriving at her house, I found such to be the case, and that she had miscarried at about 6½ months. She was profoundly comatose. Pulse: small, feeble and rapid; extremities cold, head and chest hot. The uterus was in a state of firm, tonic contraction, not a drop of blood escaping. The placenta was adherent throughout. Strenuous efforts were now made to detach it, which were only partially successful. I succeeded in detaching about one half, and bringing it through the os, where it was left; but owing to the exhausted condition of the patient (as there was no hemorrhage) further efforts for the present were abandoned. She was with difficulty induced to swallow some brandy. Large doses of quinine were also ordered, for I had no doubt she was laboring under an attack of congestive intermittent. I saw her again at 10 A. M.; she was rational. The remainder of the placenta was detached with some difficulty. Quinine was continued in liberal doses, and her recovery was speedy and complete. She has never been pregnant since, and enjoys good health.

Art. 7.—Case of Foreign Body in Air Passage.

By FORDYCE GRINNELL, Physician to the Wichita Agency, Indian Territory.

A boy, about three years of age, was brought by his parents (Caddoes) to my office, late in the evening, of the 2nd of September. He was when brought in seized with a violent fit of coughing, which continued with such force as to threaten immediate strangulation.

During the paroxysm there was lividity of the face, and a countenance indicating extreme anxiety and suffering.

The cough was accompanied by a peculiar croupy sound, though sometimes irregular, with loss of voice.

After some minutes the paroxysm ceased, but would again recur, at intervals of fifteen to twenty minutes, or more frequently if moved about. They were less frequent when the child was held quietly in a sitting or partially reclining posture, and during the night enjoyed an hour or more at a time

of quiet repose; but when disturbed or moved the paroxysms recurred with all their wonted violence.

The following history was given: The boy, in company with other children, was eating water melon and engaged in play, when he was suddenly seized with a fit of coughing and strangling, as described.

The parents also stated that in addition there were attempts at and occasional vomitings. From the circumstances as related, with the accompanying symptoms, it seemed pretty clear that the child had, while eating, inhaled a water melon seed, which had found its way into the larynx.

The accident had occurred near two weeks before the child was presented at the office. The parents resided thirty miles distant.

On the morning after my examination, expulsion of the foreign body by inversion was attempted, but only resulted in bringing on, if possible, more violent attacks than before. Hence, this expedient was abandoned, and an operation proposed, as the child's life seemed to depend on relief being at once afforded, but to this the parents could not be induced to give their consent.

While awaiting the result with much anxiety, the mother heard of a famed "Medicine Man," among the Apache Indians, whom she was told was skilled in feats of jugglery, and might be able to exorcise the offending object. The journey was made, (some forty miles), but this proved to be a case which imagination or imposture could not cure; hence, they returned without the desired benefit.

I saw the child from time to time in the months following, and observed the paroxysms becoming less frequent, and of less violence than at first, until now, four months since the accident, they have entirely ceased.

Is it not likely that the disintegration and absorption of the seed has been steadily progressing, so that the offending material is at last entirely removed?

Art. 8.—Enucleation of Eye for Sympathetic Ophthalmia.

By DR. C ALLEN LAMBERT, of Goshen, Ind.

Mr. S. K. L., aet., for twenty-nine years a dry goods salesman, called on me September 6th, 1874, for treatment of a very painful disease affecting the right eye. *History:* He stated that, when he was fifteen months old, the right eye was injured by scalding hot water. He could not give

any exact history of how the sight was lost in this eye, nor how, at the same time, the hearing in the left ear was destroyed. He has always suffered pain in the right eye, but lately the pain has been of a very violent nature, and greatly augmented when he was in active duty, or when lifting any weight.

He complains of a gradual loss of vision in the left eye. Patient called again May 5th, 1875. The symptoms were all more aggravated, and he decided to have the offending member removed.

Status presens: Great pain on slight pressure upon upper and outer part of the globe; eye-vail hard, conjunctiva inflamed, lachrymation increased, much pain in the natural movements, temporal and ciliary neuralgia. Left eye vitrious, hazy, ocular and palpebral conjunctiva irritated; lachrymation much increased, *muscae volitantes* abundant; vision, about two-thirds normal, etc.; all the usual concomitant symptoms of sympathetic ophthalmia.

Operation: patient chloroformed. ocular conjunctiva divided close to cornea, then made a small snip in ocular conjunctiva, backwards, so eye could pass out the more readily, divided the muscles close to their insertion, snipped the optic nerve with the large curved scissors, and removed the eye. A compress and tight bandage was resorted to. The hemorrhage was but trifling. Patient recovered speedily and without pain.

May 30; wound healed perfectly; no points of granulation; quite a large bulb left with a very considerable movement in all directions, adjusted an artificial eye, matching the left one nicely in appearance. He has continued to wear the eye at intervals ever since.

September, 1875; doing well; left eye much benefited, and he can now pursue his business without interruption.

Pathology: Transverse measurement of cornea $\frac{3}{8}$ of an inch, thickened, opaque and flattened. A transverse section was made of the diseased globe, dividing it into an anterior and a posterior portion. Iris completely disorganized, crystalline lens, about the size of a small white bean, and as hard as stone, completely ossified and having a roughened appearance, and tightly adherent to posterior surface of cornea; no aqueous humor, the vitreous disorganized into a dark fluid, hardly any trace of choroid coat, nor of retina. On the whole interior of the eye, reaching from cornea to optic nerve entrance, was found a large shell, like bone, varying in thickness from 3-16 to 1-4 of an inch. A small opening was only left where optic nerve had entered, through which I could only pass a No. 3 (Bowman's) probe.

The sclerotic was to all appearances normal in thickness. I have preserved the eye in alcohol, and regard it as a rare specimen, and would like to hear of other physicians or oculists who have met with similar formations in eyes, in their pathological investigations.

Art. 9.—Chloral.

By J. S. UNZICKER, M. D.

Chloral at the present time, is not quite the same as that first introduced. Since it became easier to make the hydrate than the alcohlate of chloral (at first used), the latter, and all mixtures of it, has practically disappeared from the market, without any probability of its ever reappearing.

When chloral first came into use, from ten to fifteen grains were generally found sufficient to produce quiet and refreshing sleep; but no sooner had it become a fashionable remedy, when thirty or sixty grains was considered a dose. Much mischief, as is well known, was frequently the consequence, and many cases of fatal termination, by over-taxing the system by large doses of chloral, were reported.

Dr. E. R. Squibb, the only manufacturer of a pure article of chloral at present in this country, says in his excellent paper on the subject: "Chloral supplies another forcible illustration of the baneful effects of speculation and inflation, and of the dangers which must always attend popularity, and particularly the popularity of potent medical agents. It seems hard to teach the public that nothing can be potent only for good; that to be potent only for good involves in the very nature of all things, an even potency for harm."

Hence the danger, that the most valuable remedies when used empirically, or indiscriminately, must fail to become "cure all," are unjustly thrown aside and forgotten by those who employ them with the expectation of producing sleep, even in the most unsuitable cases. Many are in the habit of combining chloral and potassium bromide, and then expect the effect of each combined. What the effect of this mixture may be is hard to tell, from the chemical changes that must naturally take place.

Alkalis, either in the form of solid hydrates or of aqueous solutions, decompose chloral readily, at ordinary temperatures, with evolution of heat, converting it into formate of potassium and chloroform, and a portion of the latter compound is further decomposed, yielding formate and chloride of potassium.

Art. 10.—Pruritus Pudendi.

By J. R. BLACK, M. D., of Newark, O., Professor of Hygiene in Columbus College.

Not long since, I read in the proceedings of the Cincinnati Academy of Medicine the report of a case of pruritus pudendi, by Professor Wright, which had proved rebellious to all methods of cure; and in which it appeared that the only relief experienced from treatment had been by the use of ice introduced into the vagina. The disorder in the case related was connected with pregnancy, and the Prof. seemed at a loss for a remedy that would give efficient relief from the unendurable itching.

I think I am able to suggest a remedy for these cases, and which will reach the requirements of the practitioner better than any other hitherto employed. The manner of my coming upon it is the following: Some years ago a young man was, as he expressed himself, almost crazy with the intolerable itching attendant on an outbreak of urticaria. I had prescribed various remedies for the relief of the stinging formication. Everything, in fact, that I had previously employed, or which my recollection of remedies by standard authors had recommended, and they had all proven insufficient. Thrown upon my original resources for something that would give him at least a little rest, I bethought me of the chloral hydrate; which on theoretical grounds, and from its properties of producing local anæsthesia, ought to give my patient the relief he so urgently sought. Accordingly, I directed the following to be applied to the itching surface with a sponge:

R^y Chloral Hydrate, ʒ iij.
Aqua. ʒ iv

A single application gave prompt relief, and he was able to sleep after a forced abstinence of two nights. The tendency to a slight recurrence was immediately subdued by the further application of the solution to the parts affected; the final result was all that the therapist could desire. I determined to bear in mind the singular efficiency of the chloral in this case and to give it a further trial at the first opportunity. I had only a few weeks to wait; the wife of a merchant, Mrs. F——, pregnant three months, had endured for a week or two the most tormenting itching of the vulva. From instinctive modesty she had been deterred from mentioning the matter to

a physician; relying for hope of relief on her own judgments and the suggestions of her female friends; but all without avail. Unable longer to endure it she applied to me April 28th. I prescribed the chloral hydrate, three drachms to four fluid ounces of water; to be applied to the parts affected once every hour till better. The application produced severe smarting, which, however, soon subsided; while the relief to the pruritus was prompt, decided, and almost permanent. Whenever the symptoms were again felt in the least the same solution was applied; and after a few days the cure was complete.

My second case was a lady above Granville, Mrs. F—, also pregnant. By her note to me it appeared that she also had endured the pruritus until she was, as she expressed it, almost beside herself. The same prescription and directions were given to her husband, and in a few weeks I had the satisfaction of hearing that the result was equally as prompt; decided and permanent.

The third case of pruritus pudendi during pregnancy in which I have had an opportunity to try this remedy was in the person of Mrs. C—, the wife of a clerk. The husband mistaking my directions only had it applied once; and while it gave decided relief, did not wholly abate the symptom. A few more applications soon removed every vestige of the disorder.

Carl Schroeder speaks very highly* in such cases of carbolic acid. This agent also possesses anæsthetic properties, though to a far smaller degree than the chloral; and if equally efficacious in the cure of pruritus, is objectionable on the score of odor. I had used the carbolic acid diluted with water as warm as the skin can well endure, in the case of urticaria mentioned in the beginning of this paper; but without any decided benefit. In a case of chronic pruritus pudendi, unconnected with pregnancy, of many years standing; the strongest solution of the acid obtainable at our drug houses, failed in abating, or even alleviating the tormenting itching. It was applied pure externally, as well as in a diluted state in the form of vaginal and uterine injections, by a Molesworth syringe. The patient reported no material benefit. In this case, the most obstinate I have ever met with, having been placed by the by, under the care of half a dozen of physicians, with no change except that of her purse; a solution of the chloral, a drachm to a fluid ounce of water, affords a decided though only temporary alleviation. Ocular and digital inspection of the cervix, and the subjective history of the case, fail in affording any clue to an

*Cyclopædia Practice of Medicine, Vol. 10.

internal source of irritation, unless a slight puffiness of the cervix can be so considered. The removal of this by the application of iodine for several weeks did not seem to mitigate the pruritus. And hence there seemed to be no alternative but to regard the case as one of a neurotic character. At the present I am using, with a fairer prospect of success than the patient has at any time experienced, vaginal injections of the chloral hydrate.

Art. 11.—Case of Rheumatism with Treatment.

By L. A. DAVIDSON, M. D., of West Milford, West Virginia.

Called March 14, 1875, to see Mr. E. S., about twenty-two years of age; married the previous fall, has articular rheumatism of left wrist and right ankle, with tenderness on pressure of lumbar region, and cervicals of the neck; with co-existing endocarditis and great febrile movement; confining him to his bed in an immovable position, a position he had been compelled to occupy many times previous. He being plethoric and of a congenital rheumatic diathesis. I apprehended hypertrophy of the heart. I at once prescribed "full alkaline treatment; followed by quinia, frictions, etc.; omitting "firm dressings," and "hot packs." March 17. Able to walk upright across his room. March 20. Discharged, able to attend to out door business; After which time I made a visit of four days to see a friend who had written for me. On my return, March 31, when stopped by Mrs. S., I found Mr. S. in about the same condition as before; the second attack coming on March 28, with more cardiac pain. March 31, 2 o'clock P. M., I dispensed the following:

R̄ Podophylin, grs., ij.
Ol Sassafras, in x M,

S. To be repeated every four hours in treacle; alternately with

R̄ Fl. Ext., Valerian, (Hance Brothers,) fl 5 ij
Bicarb. Sodæ, 5 ij

M. S. To be repeated every four hours. Three of each were left for the night without any other palliative.

April 1, 8 o'clock A. M.: Being twelve hours later I found all cardiac pain removed and articulation free in every joint. Almost ten months have intervened without the least symptom of a recurrent attack. I have almost abandoned the use of opiates since I have been using Hance Bros'. and White's Fl. Ext. Valerian.

Art. 12.—Vaccination as a Preventative of Small-Pox.

[Continued from February Number.]

By W. C. CHAPMAN, M. D., Toledo, Ohio.

SECOND.—WHY DOES THE PROTECTIVE POWER OF VACCINATION BECOME SO IMPAIRED AS TO RENDER REVACCINATION ADVISABLE?

Although Jenner considered that he had discovered a disease which being once implanted would render the person so inoculated, perfectly secure "*through life*" from the invasion of small pox. It was but very few years before the question was considered as to whether the influence of the vaccine virus would not so completely die out as to afford no protection. It was impossible to reach any conclusion in regard to the question in the brief time in which Jenner presented his essays to the world. But in his third treatise he mentioned the fact that some were even then wondering if the security obtained by the operation was temporary or otherwise.

"Some there are," he says in his third essay, "who suppose the security from the small-pox, obtained through the cow-pox, will be of a temporary nature only. This supposition is refuted not only by analogy with respect to the habits of diseases of a similar nature, but incontrovertible facts, which appear in great numbers against it. To those already adduced in the former part of my first treatise, many more might be adduced were it deemed necessary; but among the cases I report, one might be found of a person who had the cow-pox fifty-three years before the effects of the small-pox was tried upon him. As he resisted it, the intervening period I conceive must necessarily satisfy any reasonable mind. Should further evidence be thought necessary, I shall observe that among the cases presented to me by Mr. Fry, Mr. Darke, Mr. Tierny, Mr. H. Jenner, and others, there were many whom they inoculated ineffectually with variolous matter, who had gone through the cow-pox many years before this trial was made."

The cases Jenner referred to in the above where persons who had been inoculated directly from the cow, many years previous to the time at which an attempt was made to introduce the small-pox poison into the system. He mentioned that he purposely selected the several cases in which the disease had appeared at a very distant period previous to the experiments made with variolous matter, to show that the change produced in the constitution is not affected by time.

In all the attempts made to inoculate small-pox when the effects of the cow-pox virus had been previously experienced, he mentions that some local effect was manifested; but denies that there were any symptoms that would indicate that the general system had been disturbed. He says: "It is remarkable that variolous matter, when the system is disposed to reject it, should excite inflammation on the part to which it is applied more freely than when it produces the small-pox. Indeed it becomes almost a criterion by which we can determine whether the infection will be received or not. It seems as if a change, which endures through life, had been produced in the action, or disposition to action, in the vessels of the skin; and it is remarkable, too, that whether this change has been effected by the small-pox or cow-pox, that the disposition to sudden circular inflammation is the same on the application of variolous matter."

It was not long, however, before cases of small-pox occurring after perfect vaccination were so frequently noticed by practitioners, that the fact of absolute security from the disease by the adoption of the operation was not considered substantiated. Through the published statements of Jenner and others, the public had been led to believe that by submitting to the inoculation of cow-pox they would be exempt for all time from the dreaded pestilence. As one and another of these cases of post vaccinal small-pox occurred, many began to doubt the efficacy of the procedure, and resisted its adoption. As early as the year 1818, the College of Physicians, of London, in a report made to Parliament, stated that "The security derived from vaccination against the small-pox, if not absolutely perfect, is as nearly so as can perhaps be expected from any human discovery; for amongst several hundred thousand cases, with the results of which the College have been made acquainted, the number of alleged failures have been surprisingly small; so much so, as to form certainly no *reasonable objection to the general adoption of vaccination; for it appears that there are not nearly so many as there are deaths in an equal number of persons inoculated for the small-pox.*"

In Scotland a great alarm was created during the year 1813, because of the appearance of small-pox which prevailed in portions of that country; many who supposed themselves protected by vaccination were seized by the disease. The fear that it would again ravage the earth, induced the people to request a report from the physicians and surgeons residing in the neighborhood of the epidemic. These reports invariably showed that the disease was so modified by the pre-

vious vaccination, that there were no dangerous or fatal results; and in the whole British Empire not a single death had ensued from it.

In the summer of 1818, the following appeared in a Dundee newspaper: "For nearly twenty years the valuable discovery of Jenner, it is almost universally admitted, had banished the small-pox from this island; of late, however, it is painful to state, this dangerous malady has again assumed an epidemic form, and has committed considerable ravages in many parts of Britain.

"Dundee has not been exempted from its share of this severe visitation, as at this moment the small-pox prevails extensively, in a form quite unequivocal, *without altogether sparing even those who had undergone the cow-pox in a distinct and satisfactory manner.* This has spread alarm among all classes of people, and has excited the attention of the Governors of the Infirmary, who at their last general meeting, on the 8th of September last, nominated a committee, consisting of David Blair, Jr.; Alex. Ramsay, M. D.; Alex. Stormouth, M. D.; and John Crichton, Esq., Surgeon, to report on this interesting subject; and particularly to point out what confidence may yet appear due to the preventive power of vaccination, and whether any means hitherto not generally adopted, may tend to render these more effectual.

"These gentlemen, in compliance with this request, have submitted the following observations to the weekly committee, which was ordered by them to be published in the Dundee newspapers."

The report, though very interesting, is too lengthy to be given in full, but the following is a condensed epitomy of the whole:

1. "That vaccination has failed to prove a perfect security against the contagion of small-pox in an epidemic form; but that there exists a marked difference in the disease as developed in a person previously vaccinated, in some cases so mild as to hardly deserve the name of disease. On the other hand, many have died from small-pox who have never been inoculated with small-pox or cow-pox.

2. "Cases of distinct small-pox have occurred, following apparently perfect vaccination. None of these cases have proved fatal.

3. "The virulence of the present contagion is shown by occurrence of small-pox a second time in the same individual.

4. "It does not appear that there is any ground for the assertion that the preventive influence of cow-pox diminishes

by lapse of time, or ceases altogether to exist. Many interesting facts have come to our knowledge in the course of this epidemic, which are at complete variance with this opinion.

5. "There can be little doubt that much must depend upon careful selection of the matter for vaccination, and upon observing the regular process of the pustule through its different stages, as characterized by the best writers on this subject.

6. "As no danger, whatever, attends the practice of vaccination, and as it evidently mitigates in a most extraordinary manner the severity of small-pox, where it fails to prevent, altogether, its attack, we are fully warranted to recommend, in the strongest manner, the continuance of a practice which has hitherto proved so great a blessing."

It is apparent, that at as early a date as the year in which the above report was published, a modified form of small-pox had been observed, and its peculiarities made known to the profession. For a time, some writers considered that varicella or chicken-pox was a modified form of small-pox; this idea, however, was soon proved to be incorrect, and the two were shown to be distinct diseases. It was, however, known that cases of small-pox occurred more than once in the same individual; and instances have been given where the disease had occurred as many as three, five, or seven times in the same person. Generally, when it does so recur, the second attack is modified by the first to such an extent as to be a comparatively trivial affair, although, in some instances, the second is much more serious than the first, and may even result fatally.

This same development of modified small-pox occurs sometimes after successful vaccination. When thus presenting itself, it is generally so mild in character as to be scarcely noticed by the patient, two or three pustules being all that are developed. In such cases, the attending physician is sometimes greatly troubled to make out a diagnosis.

There are, however, exceptional cases following vaccination, as in second attacks of small-pox, when the disease, in all its symptoms, so nearly approaches true small-pox that it becomes almost impossible to state whether the disease is at all modified.

The term varioloid has been given to this modification of variola. This is evidently a misnomer, as the two forms are but modifications of the same disease, and are not to be considered in any way distinct in character. As regards the frequency of the occurrence of varioloid after small-pox, com-

pared with that following vaccination, most writers consider that there is not much difference, there being fully as many second attacks of small-pox as of post vaccinal cases. Of late years, however, there seems to be an increase in the number of varioloid cases occurring after vaccination; this is scarcely to be wondered at, as it is proven that the influence of vaccination does eventually die out, after having been once performed; and there comes a time when the individual so unprotected, when exposed to the contagion, will as readily contract the disease as if vaccination had not been performed.

There are certain epidemics, in which it becomes possible to revaccinate with success a much greater percentage of cases than at other times. Dr. W. B. Davis, in an article published in the *Lancet and Observer* for February last, demonstrates that the susceptibility to revaccination is shown in at least 75 per cent. of those operated upon, that number "taking" the disease as perfectly as if no primary vaccination had been undergone.

This susceptibility is in no wise exceptional, and such a fact cannot be too strongly urged as a reason why revaccination should be insisted upon.

Dr. Frank P. Foster, in the close of his report to the New York Dispensary for 1873, says: "I would also call attention to the great proportion of successful *revaccinations*, and insist that these figures are not to be taken as exceptional, but that in *general* a much greater degree of success ought to be attained in revaccinations than the profession at large seem to expect. In August last, I had the opportunity of bringing these results to the attention of the Public Health Section of the British Medical Association, and I was then much gratified to hear Dr. Grieve, who was in charge of the Hamstead Hospital during the last epidemic of small-pox in London, express the same view."

The question arises, that if the protective power of vaccination does die out in an individual, is it possible to again give protection by a revaccination, and, if so, is it also possible to determine a definite time at which such a procedure should be insisted upon?

Such authorities as Aitken, Niemeyer, and many others equally prominent, consider that there is no doubt but that vaccination protects the individual for a limited time only. The former writer says: "Since vaccination has been generally practiced, it has now and then seemed apparent that the protective power of vaccination becomes gradually weaker, and at length dies out in the individual." Niemeyer conclude

that "The protection against variola afforded by vaccination is for a far shorter period than is generally believed." Dr. Copeland mentions: "That he saw and describes as early as 1823, small-pox as it affected members of the same family, at different periods after vaccination, and in young persons who had been vaccinated only ten or eleven years. Contrasting such cases, he found that the severity and fully developed condition of small-pox was generally in proportion to the length of time which had elapsed from vaccination."—(Aitken).

The period for which protection is guaranteed by a successful vaccination may be longer or shorter, when many individual cases are under consideration. It is impossible to positively determine the time in each case, when the protective power of vaccine virus has completely died out. By experiment it has been discovered that there comes a time, in the life of every individual, who has previously undergone the operation, with scarcely an exception, when the system may be again brought completely under the effect of the virus, introduced by a vaccination. All the local and general symptoms in no wise differ from those observed in a primary vaccination. As has been previously stated, of late years there has been a marked increase in the number of varioloid cases occurring during any epidemic of small-pox. In some instances, this development of the disease may be traced to a poor primary vaccination, but in many others there is no doubt but that the cause lies in the time which has elapsed since the operation was performed. Dr. Welch fully considers this portion of the subject in the report of the Philadelphia Municipal Hospital, to which reference has already been made. He concludes in closing this portion of the subject, in these words: "We have adduced, we think, facts sufficient to prove that the susceptibility to small-pox, which is destroyed for some years in vaccinated persons, returns, and progressively increases, (up to a period undetermined) with the distance of time from the primary vaccination. The logical inference then is, that revaccination will exhaust the returning susceptibility to small-pox. Fortunately this is not only beautiful in theory, but has been found to be the fact, as existing records show, whenever revaccination has been carefully practiced. The rare occurrence of death from that disease after the latter places its practical efficacy beyond question. Revaccination is not to be recommended only, as some suppose when the primary vaccination has been imperfect, but to all persons, irrespective of the character of their cicatrices; for it is now fully established, that a typical vaccine scar is not proof of the im-

munity of the individual from small-pox. * * * * *

We are fully prepared to earnestly and cordially recommend revaccination, as a most necessary supplemental measure to the primary vaccination."

Dr. Aitken publishes the following, taken from various Army reports: "In 1833 between 40,000 and 50,000 adults were revaccinated in the Prussian Army, and in about 33 per cent. of the entire number the revaccination "took" with perfect success. Amongst the Russian soldiers at Kasan, the rate of perfect success was about 18 per cent. In the army of Denmark, from 1843 to 1847, nearly 20,000 revaccinations were practiced, of which more than half were attended with perfect success, and more than a quarter with modified success.

"Since 1843, revaccination has been compulsory in the Bavarian army. From that date till 1857, not even a single death from small-pox has occurred, nor even a single death from unmodified small-pox. Similar good results have followed the institution of revaccination in the Danish army; the army of Sweden, of Baden, and in the British army also, according to Dr. Balfour's interesting report for 1859. So great indeed is the practical importance of revaccination, that in the British army a departmental order was issued by circular, of date 21st of September, 1858, and is at present in force, which ordains that every recruit, without exception, on joining the headquarters or depot of the corps or regiment to which he belongs, shall be vaccinated, even if he should be found to have marks of small-pox or previous vaccination, and that a monthly return of the results, as to (1) a perfect vaccine pustule following the operation, or (2) a modified one, or (3) a failure shall be forwarded to the Director General."

From reports made by Mr. Simon, as regards revaccination in various armies, the following extract is taken as it appears in a paper published in the volume of United States Sanitary Commission, on the subject of "Vaccination in Armies:—" "On the average of more than 14,000 experiments (an immense majority performed at ages between twenty and thirty years), 34 out of every 100 persons revaccinated developed the same sort of vesicle, as would arise from a first insertion of vaccine lymph. And, it is important to observe, this renewed susceptibility to cow-pox did evidently not depend, so far as could be traced, on any original ineffectiveness of the former vaccination; for (as is expressly set forth in the second part of the table) among the 14,384 subjects of vaccination, there were 7,845 who presented strictly normal scars of previous vaccination. Yet, nearly a third of this large number

gave again exactly such phenomena as arise in children when vaccinated for the first time. It does not follow from this, however, that every third man would have taken the small-pox if exposed to the contagion, but that they would have been *endangered* admits of no doubt."

	Total.	Ratio of success per 1000 cases vaccinated.		
		Perfect Success.	Modified Success.	No Success.
Vaccination of Wirttemberg Army, in the five years, 1831½-1835½.....	11,384	340.2	260.8	411.5

It is to be regretted that it has been impossible to find any statements as regards vaccination in our own army during the late war. The only report that has come to hand, is one furnished by Dr. S. O. Vanderpoel, Surgeon-General of New York, and is published in the sanitary reports previously referred to. This report consists of the returns made to him in accordance with a general order.

Total number of recruits examined with reference to vaccination.....	9,548
Number of persons bearing marks of previous vaccination.....	7,765
Total number vaccinated or revaccinated.....	8,006
Total number vaccinated who were found susceptible.....	2,292
Number of susceptible persons who had marks of previous vaccination.....	1,338

From this report it appears that a little more than one-sixth of those who bore marks of vaccination, were, at the time of examination, susceptible to the disease.

There is much greater difficulty experienced in determining the time at which vaccination should be performed, than in demonstrating that the operation itself is desirable and necessary. There is, in fact, no practical manner by which it can be positively demonstrated that the protective power is unimpaired, in any individual case, unless the experiment is made of introducing the virus a second time into the system. In private practice it is impossible to make any extended experiments to determine the matter; the only reliable data that can be taken, authoritatively, are the carefully prepared reports of small-pox hospitals, extending over a long period of time. There are certain periods of life which appear to be especially pre-disposed to small-pox contagion, and it is a fact, that a greater mortality attends the disease when occurring in the extremes of life—infancy or old age. This should, therefore, be remembered when the amount of protection given by a

previous vaccination is being considered ; evidently that vaccination which would amply protect during middle life would not exert sufficient power to render the individual secure during the periods mentioned as being particularly disposed to the disease.

In the valuable article furnished by Drs. F. G. Smith and Alfred Stille, to the Sanitary Commission, entitled "Vaccination in Armies," mention of which has already been made, the following extract occurs as taken from the work of Mr. Simon: *

"Mr. Simon states that in Paris nearly one-third of the whole number of deaths from small-pox occurred between the ages of twenty and thirty, indicating, as he remarks, an appalling amount of post-vaccinal small-pox.

"He further states that what chiefly attracted attention was, that persons who had been vaccinated ten or fifteen years ago, and who during this interval had, perhaps, repeatedly resisted small-pox, would at length yield to the infection in a certain proportion of their number. This had most frequently happened during the times when small-pox was severely epidemic among the unvaccinated; and when large masses of persons with vaccination of many years were exposed to the test of a strong epidemic influence. Under this ordeal it became evident that for some vaccinated persons the insusceptibility conferred by cow-pox was not of life duration; and from a careful analysis of cases, that this lessened security of certain vaccinated persons bore at least some proportion to the number of years which in each case had elapsed since vaccination. For there were not materials to prove any uniform rate of increase from year to year; and the increase, such as it was, apparently continued up to thirty years of age; after which period it seemed that the liability to contract small-pox underwent a continuous decline. Thus, Professor Heim, taking 1,055 cases of modified or unmodified small-pox in vaccinated persons, distinguished them under thirty-five heads, corresponding generally to the thirty-five years which had elapsed since vaccination. When this is divided in three successive parts, one for the *first twelve years* after vaccinations, one for the next *seventeen*, and one for the *following six years*. It appears that the average number for each year is, in the first division, twelve; in the second division, forty-eight; in the third division fifteen. A calculation of similar materials made by Professor Retzius, with respect to 961 cases in the Stock-

*Papers relating to the History and Practice of Vaccination presented to Parliament by command of her Majesty. 1857.

holm hospital, gave the following series to express the average allotment of small-pox to each year of life in eleven successive quinquennials, up to the age of fifty-five: 3 1-5, 4 2-5, 13 1-5, 45 2-5, 51 3-5, 40, 20, 17 3-5, 3 4-5, 2 1-5, 1.

Mr. Maison, who had been for twenty years resident surgeon of the small-pox and vaccination hospital in London, says in a petition to Parliament:

"But few patients under 10 years of age have been received with small-pox after vaccination. After ten years the number began to increase considerably, and the largest admitted are for the decimal period from the age of fifteen to twenty-five; and although progressively diminishing, they continue rather large up to thirty; and from thirty to thirty-five they are nearly the same as from ten to fifteen; but as in the unprotected, at this period of life the mortality is doubled; showing the cause to be probably as much or more depending on age and its concomitants as on other circumstances. In still further advanced life, the rate of mortality will seem to increase also, as in the unprotected state. But this tendency may be in a considerable degree counteracted, there is little doubt, by giving more attention than has hitherto generally been given to the perfection of the process of vaccination.

Professor Flint considers that "there is no known law governing the duration of the protective influence of a single vaccination. Probably the duration varies widely in different persons, and some persons are protected by one vaccination for life. Some have thought that vaccination ought to be practiced as often as every three years; and others that an interval of twenty years or more is allowable. It is evidently better that the period should be needlessly short than too long. With our present knowledge, the propriety, if not importance, of revaccination every five years is to be advocated. In case of known exposure, or where small-pox prevails as an epidemic, it is proper to revaccinate without regard to previous vaccination; in fact, it is always proper as the readiest and safest test of insusceptibility to small-pox."—[*Practice of Medicine*, Page 906.]

Prof. J. Lewis Smith remarks that "The longer the period after the first vaccination, the greater the number of those in whom a second vaccination is effective; and, as has already been intimated, the greater also the liability to the variolous disease if a second vaccination is not performed. It is recommended, therefore, to perform a second vaccination, not later than the sixth or eighth year, and again in childhood; and if small-pox is epidemic it is proper to vaccinate all who

have not been vaccinated within three or four years.”—[*Diseases of Infancy and Childhood*, p. 222.

Many authorities agree that a perfect vaccination almost positively protects the system up to the period of puberty, at which time a successful revaccination may be performed. As the age of puberty varies with each individual, this statement is a very indefinite one upon which to base any theory; and may include the period from twelve to eighteen years, varying in each individual case. It is probable, however, that this change does to some extent influence the protective power of vaccination performed in infancy; but it is equally as probable that the time intervening between the primary vaccination and puberty, has much more to do with the renewed susceptibility than the systemic change completed in puberic development.

The experience derived from observation in small-pox hospitals, does not show that the protective power of vaccination is in all cases perfect up to the age of puberty, or fourteen to seventeen years. It is, however, noticeable that when an attack of small-pox does occur before that time, the accompanying phenomena are generally modified to a great extent by the vaccination previously performed. In an article published in the *London Lancet* of April 8, 1864, the following remark is made: “Not a single revaccinated case has been admitted into the small-pox hospital at Homerton, and no death of a vaccinated person under seventeen. This shows the protective power of even imperfect vaccination up to puberty, and the necessity of revaccination at this time.”

Meigs and Pepper, in closing an article on the vaccine disease, say: “The only remaining point for consideration is the period of life at which revaccination ought to be performed. The prevailing opinion seems to be that somewhere about puberty is the most suitable time; unless in the cases of children exposed immediately to the infection of the disease, when it may and ought to be resorted to at a much earlier period.

Dr. Welch has published tables which are valuable in this connection, and are taken from the report of the Philadelphia Municipal Hospital previously referred to. The first table “shows the degree of protection which vaccination confers to the age of puberty;” introducing for comparison the unvaccinated cases. The second table shows “the protection conferred by vaccination up to the age of puberty, as compared with the protection subsequent to that period.”

TABLE.

Showing the degree of protection which vaccination confers up to the age of puberty.

		Admit'd.	Died.	Per ct. of deaths.
Under one year of age.	Not vaccinated.....	24	20	83.33
	Vaccinated less than 7 days previous to the appearance of the eruption.....	6	5	83.33
	Vaccinated more than 7 days previous to the appearance of the eruption.....	5	2*	.....
	Totals	35	27	77.14
1 to 7 years, both inclusive.	Not vaccinated.....	96	53	55.2
	Vaccinated in infancy—good cicatrices.....	7	.....	.....
	“ “ “ fair “	7	1	.....
	“ “ “ poor “	8	2†	.....
	Post-vaccinal cases	22	3	.....
8 to 14 years, both inclusive.	Not vaccinated.....	71	27	38.
	Vaccinated in infancy—good cicatrices.....	36	2	5.55
	“ “ “ fair “	11	.....	.....
	“ “ “ poor “	37	6	16.21
	Post-vaccinal cases.....	84	8	9.52

* Recovered from varioloid, and subsequently died from convulsions.

† Cicatrices very poor—doubtful if successfully vaccinated.

TABLE.

Showing the protection conferred by vaccination up to the age of puberty, as compared with the protection subsequent to that period.

		Admit'd	Died.	Per ct. of deaths.
Under 14 years of age.	Not vaccinated.....	197	105	53.29
	Vaccinated in infancy—good cicatrices.....	44	2	4.54
	“ “ “ fair “	22	3	13.63
	“ “ “ poor “	45	8	17.77
	Post-vaccinal cases.....	111	13	11.71
Above 14 years of age.	Not vaccinated.....	500	344	68.8
	Vaccinated in infancy—good cicatrices.....	667	71	10.64
	“ “ “ fair “	314	45	14.33
	“ “ “ poor “	537	147	27.37
	Post-vaccinal cases	1,518	263	17.32

As the author remarks, these figures "clearly demonstrate that vaccination performed in infancy diminishes in protective power as the person advances in life, and especially after the age of puberty."

In considering the foregoing testimony, there is but one conclusion at which to arrive when considering the utility and desirableness of revaccination. There is no doubt but that the protective power does die out in the individual, and that there is a time in post-vaccinal life when an attack of the variolous disease may be so severe as to be scarcely, if at all, modified by the primary vaccination. It is also clearly demonstrated that the further removed the attack may be from the time of vaccination, the more severe will it be in character. The figures presented show that in all cases where a number of individuals have been revaccinated at one time, as in the army, there are many who "take" the vaccination apparently as well as if it were the primary operation, thus showing such persons to be really unprotected. The adoption of revaccination is therefore to be recommended most fully as a preventive measure against small-pox.

The time at which revaccination should take place can not as fully or clearly be determined, for reasons given in the preceding pages. It is better to err, however, in making the periods between vaccinations too short than too long; nor yet is it best to endeavor to enforce any useless inconvenience upon the public. The age of puberty is considered by many as the time of all others when the revaccination should be performed. There does not appear any especial reason why this should be a time chosen, in preference to any other, unless it be that fourteen years (that being the age considered as the time of puberty) is as long a period as should possibly intervene between the two operations. The five years of Prof. Flint appear needlessly short, as the published statistics show that the severity of a variolous attack, occurring so near the time of a perfect vaccination, is a trivial affair, and the mortality almost nothing.

There are some cases which present themselves for revaccination a few years after the primary operation, in which the protective power has so completely died out as to allow of a successful reinoculation. These cases are, however, so exceptional that it would be folly to take them as examples to prove that every four or five years the revaccination should be performed. Indeed, it is not often possible to obtain satisfactory results from the second introduction of the virus until much longer time has elapsed between the two operations. In

most cases a revaccination performed about the tenth year of life guaranties protection as perfect as though there had been an intermediate vaccination at five or eight years of age. It does not appear that it is best to wait until the indefinite time of puberty before insisting upon the operation, for it is found by consulting statistics that there is a marked susceptibility after passing the first ten or twelve years of life. It would be perhaps advisable to again revaccinate at the age of twenty, after which time it is doubtful whether there is any necessity for again introducing the vaccine matter into the system. By this mode of procedure, it is believed, all is gained that is expected from the operation of vaccination, without so annoying the public as to bring the measure into disfavor; of course it is always necessary to be satisfied that the primary vaccination was successful, the fact being demonstrated by the character of the cicatrices existing upon the arm of the individual. If such proof is not satisfactory, revaccination should be performed immediately upon inspection. It would be best to except from this rule of procedure those persons residing in a locality where an epidemic of small-pox was raging. In such cases it would be proper to immediately revaccinate *all persons*, irrespective of well formed cicatrices or statements made as to the time or character of the primary operation.

There are many persons who, no doubt, consider themselves secure from all danger from the contagion of small-pox by reason of a vaccination performed at a previous time, who carry with them no proof, in a well marked cicatrix, that such a vaccination was successful. There is a recollection, perhaps, of an inflammation following the introduction of the virus, but further than that nothing is known as to whether the whole system was brought under the influence of the disease. In too many cases the result of the operation is only known, from the lips of others by the attending physician himself, as after having once introduced the virus into the arm, no attention is given to the development of the disease, or of personally observing the attending phenomena. There is, therefore, no doubt but that the method by which the operation is performed, and carelessness in the seemingly minor details connected therewith, are fruitful sources of insufficient protective power.

There are many points of interest and value that may be discussed when considering the performance of the operation, and it is certain that by fully understanding them, and conscientiously endeavoring to carry them into practice, the physician may be able to guarantee a greater degree of protection, than if the operation is carelessly and to some extent ignorantly performed.

In endeavoring to fully consider this portion of the subject, the following divisions of the question will be made, so that it may be carefully studied in detail.

- 1st. The age at which vaccination should be performed.
- 2d. The selection of virus.
- 3rd. Methods of introducing the vaccine matter into the system.
- 4th. Number of vesicles desirable.
- 5th. Signs of successful and unsuccessful vaccination.

1st. The age at which vaccination should be performed.

Authorities pretty generally agree that the infant should be vaccinated during the first year of life. In a country practice, when there is no danger that the child will be exposed to the variolous influence, as strict an observance of this rule is not so imperative as in cities where there is a liability to exposure in so many different directions; public hacks, railway cars, assemblies of people and other city associations are fruitful modes of conveyance of the contagious miasm. It is, therefore, considered advisable, in city practice, to vaccinate when the child is three or four months old, provided always that the infant is free from any constitutional disorder. The organs of nutrition should be in such a healthy condition that the vitality may be fully sustained, provided any unpleasant complications should arise during the course of the vaccine disease. An exception should be made to this rule when small-pox is prevailing as an epidemic in any locality; in such case no age should be considered as too young. Even when the operation has been performed as early as the day of birth no serious results have been noticed; it is considered far wiser to risk an attack of vaccina at this early age, than to endanger life with an almost certainly fatal attack of small-pox.

In the instructions issued by the Lords of Privy Council in England, the following occurs: "Except so far as any immediate danger of small-pox may require, vaccinate only subjects who are in good health. As regards infants, ascertain that there is not any febrile state, nor any irritation of the bowels, nor any unhealthy state of the skin, especially no chafing, or eczema behind the ears, or the groin, or elsewhere in the folds of the skin. Do not, except of necessity, vaccinate in cases where there has been recent exposure to the infection of measles or scarlatina, nor when any erysipelas is prevailing in or about the place of residence."

The Edinburgh Medical Journal of November, 1871, speaking of an epidemic of small-pox then prevailing, remarks that, "There can be no doubt that the present epidemic has had the effect of causing several disputed points to be finally set at rest, and, among these, the question as to whether it was right to vaccinate women who were pregnant. The old idea was that vaccine, being a poison similar to that of small-pox, would cause abortion to take place, but this has been contradicted by all the first-class obstetricians. Next it was thought unsafe to vaccinate children much under six weeks, whereas the medical officers of the Privy Council has distinctly advised that children who are exposed to the influence of small-pox poison, should be vaccinated within a week of their birth. It was also supposed to be dangerous to revaccinate elderly people, but this has been shown to be incorrect. There can be no question that grown up people suffer, generally speaking, more from vaccination than children, the same as they do when attacked with measles, whooping cough, etc., and this, I believe has given rise to the idea of vaccination affecting people worse during what is termed a varioloid condition of the atmosphere."

2d. *The selection of Virus.*

There is at the present time a discussion in progress as to the advisability of employing bovine or humanized virus in performing vaccination. The testimony given by various writers is so conflicting that it is difficult to arrive at any satisfactory conclusions from a consideration of the subject as given by them. Those who have had much experience with the animal virus are much pleased with the results therewith obtained, and there are many reasons why it should be preferred rather than the humanized matter. As briefly as possible the views of the most prominent experimenters will be given, and although conflicting with each other on many points, it is certainly shown that there are reasons why discretion should be used in the selection of the form of virus to be employed in the performance of the operation in any given case.

Most authorities agree that virus taken from the cow direct produces a more marked result than humanized virus; that is to say all the local and constitutional symptoms are greatly aggravated. As a rule they concur in the opinion that it is more difficult to obtain the specific result when one animal is inoculated from an animal of another species. This fact has confused the minds of many, and given rise to the belief that

the disease as it appears in different animals is not the same.

It was some time after the appearance of cow-pox in man, before it was possible to convey the disease back to the cow from the human vesicle. This characteristic is noticed at the present day; many practitioners who employ the bovine virus are annoyed that no satisfactory result follows unless the operation is repeated several times.

From a series of careful experiments and observations, Dr. Benjamin Lee arrives at the following conclusions:—

1st. "That virgin vaccine lymph direct from the heifer is not easily absorbed into the human system, and that therefore it is not advisable to attempt its general use in the face of an epidemic or the presence of direct contagion.

2d. "That it is less readily absorbed in the case of infants than of older children and adults.

3d. "That, when absorbed, it produces the vaccine disease, in both its local and constitutional manifestations, in its most normal and perfect type, without unusual severity or complication.

4th. "That virus produced by inoculation of a single human being with virgin lymph, for the first time, is absorbed into the human system with excessive readiness, constituting the most active virus that can be procured.

5th. "That such virus is more likely to induce true vaccine in persons already vaccinated than ordinary humanized virus of long descent.

6th. "That what is true of lymph of the first remove is also immeasurably true of that of several subsequent removes, but to what extent, these experiments do not determine.

7th. "That, excepting the foregoing conclusions, it is a matter of primary importance that every large centre of population should be provided with the means for frequent revivifying its supply of virus by a return to the original source." (*New York Medical Journal*, May, 1873.)

Prof. Flint considers that while the effect produced by the production of animal virus is greater both locally and generally, still he does not think that the protective influence is any more perfect on account of such excessive inflammatory action.

The deduction made by Prof. Aitken in a comparison of the effects produced by the use of either form of virus, correspond substantially with those of Dr. Lee. On page 402 of the first volume of his work on the Science and Practice of Medicine, he says: "There seems to have been great uncertainty and difficulty often attending the actual attempts to transfer the

specific virus of these eruptive or variolous diseases from one animal to another. Second.—These experiments show the marked improvement which sometimes takes place in the energy, and therefore in the quality of the specific virus, by subsequent removes or inoculations, in animals of the same kind, after the virus had been successfully implanted in one of them. This energy and improved quality was shown in the more perfect development of vesicles, and in the more active manifestations of the primary symptoms. The subsequent inoculations of such improved lymph seem to produce less severe and less dangerous local results, the virus seems less acrid, less virulent, and less mischievous, having apparently acquired increased specific activity combined with mildness of action, and a greater susceptibility of transmissions from one animal to another of the same kind.

“During the siege of Paris, Dr. Quinquand had all successful cases with the human lymph, but only one-third with that from heifers. Dr. Thevenot, with calf vaccine, had only two successful cases out of twenty-one. Of thirty-two surgeons in Paris who sent in their reports, one says that vaccine from the calf became better after passing through the systems of three or four different children, though bad and difficult to introduce for the first time. The rest (thirty-one) agree that vaccination from the calf was provokingly unsuccessful, succeeding, at the very utmost, only in a fourth of the children vaccinated directly, and much less from calf virus or glasses. Of sixteen others who who tried the calf virus, thirteen failed completely. Dr. Gaillard, who succeeded 170 times out of 283 with calf vaccine, was successful in 2,740 times out of 2,856 with Jennerian vaccine.”—[*Edinburgh Medical Journal*, November, 1871].

Notwithstanding, many practitioners, from experience, believe that the use of animal virus is not as satisfactory as that taken from the human subject, for the reasons given in the foregoing quotations. Still, there are several recognized advantages derived from the employment of the matter taken directly from the cow, not the least of which is the growing prejudice of the public in favor of the animal virus, and the request, frequently made, that the attending physician shall employ that form in performing the operation. There are, however, at the present time many physicians who have made a specialty of the performance of the operation of vaccination, who very strongly urge the adoption of the animal virus as far preferable to the other form; and their testimony, certainly, to a great extent, refutes the statements already made.

Prominent among those who have given particular attention to the subject is Dr. Frank P. Foster, Director of the Vaccine Department of the New York Dispensary. The reports made by him to the Board of Trustees of that Institution are worthy of careful consideration, for the reason that his experience has been, perhaps, as great as any one who has employed the animal virus. The vaccine used by him originated in the spontaneous cases of cow-pox, discovered at Beaugency, France, in the year 1866, and has never passed through the human system. In his hands the animal virus imparted the vaccine disease to the human subject as readily as did the humanized virus.

There is no doubt but that, during the few years just past, the employment of animal virus has become much more popular with the profession than in former years; one reason may be the demand for its employment by the public, and another, quite as probable, the readiness with which the market can be supplied with fresh reliable vaccine, from the many institutions which have been paying particular attention to its production. The enormous demand may be appreciated by noticing that during the year 1873, the New York Dispensary alone supplied 70,302 quill slips, sending them to all portions of the globe.

From Dr. Foster's report for the year 1871, the following extracts are taken, and they certainly show that he has not experienced the same difficulties in the employment of animal matter, as have those whose testimony has heretofore been given:

"The following statement shows the results, as regards success, which have been obtained at the dispensary with bovine and humanized virus, respectively:

Per centage of success in primary vaccinations with the long humanized lymph, in use in 1870.....	78
Per centage of success in primary vaccinations with humanized lymph of early removes, in use in 1871.....	95
Per centage of success in primary vaccinations with bovine lymph, in use in 1871....	93

"The number of cases (2,983) furnishing the results upon which this estimate is founded, is certainly large enough to warrant our forming a decided opinion upon one of the chief objections urged by the opponents of animal vaccination, namely, that the successful vaccination of children with bovine virus is a matter of considerable difficulty; and the only deduction that we can draw from the facts, as we have observed them, is that *this objection is entirely unfounded.*"

In the returns for the year 1873, Dr. O'Brien reports 4,322 primary vaccinations, *without a single failure*; this is certainly a remarkable result, and the animal virus being employed exclusively, the fact certainly tends to disprove the statement that with its employment a great difficulty is experienced in implanting the disease.

In respect to the high degree of inflammatory action, generally considered as a result of the introduction of animal virus, Dr. Foster says: "Another great objection urged against animal vaccination is that vaccination of the human subject with bovine virus is apt to produce dangerous severe inflammation. Our experience certainly has not shown any foundation for this fear. Our work is for the most part among an ignorant class of people, who are very much given to using meddlesome treatment of their own for the vaccinal efflorescence, thereby certainly favoring the occurrence of bad results; and who look upon a very sore arm as a reason more potent than any other for submitting a child for inspection. Such being the case, if any example of dangerous inflammation had occurred in our practice, we should certainly have been made aware of the fact. So far from this having been the case, it has been a matter of common remark at the Dispensary that there were fewer inflamed arms seen during the past year than is usually the case. Not a single case of very severe inflammation has occurred; but the few that have made any approach to it were in cases in which the humanized lymph had been used. Whether or not this fact is to be explained by supposing that bovine virus actually produces less inflammation than does the humanized, I am not prepared to say. I think it not unreasonable to conclude that this freedom from inflammatory complications has been due to our having, more invariably than ever before, adhered to the use of lymph in preference to the crust; and to the enforcement of great carefulness in the performance of the operation."

Dr. Foster says further: "It seems evident to me, then, that the practice of animal vaccination has positive advantages, and that we may consider the following proposition as well established:

1. "Vaccination with bovine virus is at least as successful as that with humanized virus.

2. "There does not appear any valid reason for looking upon vaccination with lymph procured from a succession of bovine inoculations, as inferior, in the protection conferred against small-pox, to those with humanized virus, or with virus direct from cases of spontaneous cow-pox. On the con-

trary, in the case of the inoculated bovine disease, we can always be sure as to the precise period of the disease; and consequently, in taking the lymph, can choose the time when it is more energetic. Whereas we can never or seldom assign a precise date to the origin of a spontaneous case; and indeed must very rarely have an opportunity of seeing such a case until the proper time for taking lymph has passed.

3. "Vaccination with bovine virus certainly does not entail a risk of any greater degree of inflammation than is generally met with in the use of the humanized stock.

4. "Animal vaccination enables a careful vaccinator to be *positively certain* that he runs no risk of unwittingly conveying syphilis or other taints in vaccination.

5. "The amount of vaccinal efflorescence considered necessary to constitute an effectual prophylactic against small pox is, with bovine virus, attainable with a decidedly decreased amount of traumatism.

6. "As is now generally admitted, animal vaccination is a great addition to our sources of vaccine; and furnishes a safe-guard against 'vaccine panics.' On this account alone, if on no other, it should be steadily maintained."

In referring to the testimony given by the several witnesses quoted, it is difficult to arrive at satisfactory conclusions. The report of Dr. Foster contradicts the experience of many worthy observers; not only those who experimented some years ago, but those also whose investigations have been made as recently as his. The statement made by him in relation to the severity of the inflammatory action cannot be regarded as at all conclusive. His evidence appears as of a negative character, rather than a positive demonstration of facts; for he asserts that in Dispensary practice it is impossible to follow the course of the vaccine disease, and therefore he takes it for granted that unless the case returns for treatment, there has been no unusual inflammatory condition.

There is positive advantage in being able to quiet satisfactorily any popular prejudice as regards syphilitic inoculation; many persons believing that there is a great risk in the employment of humanized virus; this does not exist when animal virus is used. Whether such danger is a reality will not now be discussed; but when considering this portion of the subject, it is hoped that facts can be produced to demonstrate that by a careful selection of pure humanized virus, this prejudice can be to a great extent removed.

The establishment of institutions from whence a supply of animal virus can at all times be obtained, is certainly a point

of not a little moment; for there can in such case be no danger that the demand can ever exceed the supply, and thereby create a panic.

From the experience of the writer, in the employment to a considerable extent of both animal and humanized virus, and by a careful comparison of the investigators whose views have been presented in this article, as well as many others, the following conclusions are arrived at; believing, however, that very little choice remains between the two forms of virus.

1. It is clearly demonstrated that in the lymph taken from either a human or bovine vesicle, is found all that is necessary to produce the vaccinal disease in the human subject, and so protect the system against small-pox.

2. In most cases the constitutional and local manifestations are generally more severe after the employment of animal than human virus; but there are exceptional cases where the latter form of vaccine matter creates a much lighter grade of inflammatory action.

3. There is no marked difference in the ability to *readily* impart the vaccine disease in the employment of either animal or human virus.

4. As there is a prejudice amongst the people as regards the implanting of syphilis, or other blood poisons, into the system, by the employment of humanized virus; when the use of animal virus will remove such prejudice, it should in all such cases be employed.

There are two forms in which the vaccine matter is presented for use, there being no difference, no matter what may be the source of supply. In one form, the lymph is withdrawn from the vesicle, and used immediately or preserved hermetically sealed in capillary tubes. The other form is where the lymph is dried upon quills or ivory points, previously inserted into the vesicle; or where it is allowed to dry *in situ*, forming a crust or scab, to be removed when entirely inspissated. The question here arises, whether there are reasons why one form should be employed in preference to the other.

In Germany and some other countries, arm to arm vaccination, as it is called, is preferred, for the reason that lymph taken from one patient and introduced immediately into the system of another, does not run the risk of deterioration from the action of the atmosphere. This is, perhaps, the most certain mode of procedure; but it is only possible to employ it under the most stringent regulations; such that render it out of the question to generally practice the method in this

country. In private practice it is very difficult for the physician to bring two patients together at just the right time; one who has been vaccinated and the other who desires so to be. In armies and hospitals it might be possible; but it is certainly impracticable in general practice.

As has been mentioned it is possible, to withdraw the lymph from the vesicle and preserve it for a time unchanged. It is found in the market either dried upon points or sealed in tubes. If required for immediate use, the slips or points are as reliable as any other form; but when wanted for future service the tube should always be selected, as being preserved from the action of the atmosphere; the specific power of the virus is not destroyed. Great care should be exercised that the lymph be taken from none but typical vesicles, and only when the virus is most active. It is considered best either on the sixth, seventh, or eighth day after the performance of the operation. Lymph should be clear, and the vesicle from which it is taken firm, translucent and pearl colored.

The instructions given by the Lords of the Privy Council, London, being the result of the experience of the most prominent specialists, is worthy of careful attention, and the recommendations should be adopted in the selections of lymph. "Never take lymph from cases of revaccination; never use or furnish lymph which has the slightest admixture of blood; take lymph only from well characterized, uninjured vesicles, at the stage (the day week after vaccination) when they are fully formed and plump, but there is no perceptible commencement of areola; take lymph only which, as it issues from the vesicle, is perfectly clear and transparent, and none which is at all thin and watery. Never squeeze or drain any vesicle. From such a vesicle as vaccination by puncture commonly produces, do not, under ordinary circumstances, take more lymph than will suffice for the immediate vaccination of five subjects, or for charging seven ivory points, or filling three capillary tubes; and from larger or smaller vesicles take only in proportion to their size. Be careful never to transfer blood from the subject you vaccinate to the subject from whom you take the lymph. Note any case wherein the vaccine vesicle is unduly hastened or otherwise irregular in its development, and if similar results occur in other cases vaccinated with the same lymph, desist at once from employing it. Change the lymph if, on the day week after vaccination, the vesicles are not entirely free from areola. Keep the lancets, and other instruments used, scrupulously clean, and do not use them for other surgical operations. Clean the instruments used thoroughly after one operation before proceeding to another."

The vaccine crust is, perhaps, more generally employed by the profession in private practice than the lymph, not only because it is more readily obtained, but because it is less troublesome to carry from place to place. There is no reason why, with proper care, as good results may not be obtained from this form as any other.

In selecting a crust attention should be given to its appearance, as the whole energy of the contained virus may have been lost in the keeping. A crust should be of a dark brown lustrous color, round or oval in form, with a more or less umbilicated center; those which are hard and crisp to the feel are more reliable than those which are soft, and bend, rather than break, upon pressure.

The crust may be preserved for some length of time by carefully excluding from the action of the atmosphere. The method which is generally adopted is the enveloping of the crust in beeswax and tinfoil, immediately upon removal from the patient. During the last month the writer has successfully vaccinated several infants with a crust thus preserved nine months previously. Dr. Collins, in a number of the Boston Medical and Surgical Journal, 1858, publishes the results of experiments made with glycerine as a preservative agent. The scab, being pulverized upon a glass plate, is dissolved in pure glycerine, and then drawn by suction into capillary tubes, and hermetically sealed. He states that he was able to fill fifty tubes from one crust, and therefore be enabled to have a constant supply of vaccine, the activity being unimpaired, as proven by experiment many months thereafter.

Müller demonstrated that by mixing glycerine with lymph, the activity is not at all diminished, and the disease developed from the introduction of such virus is as complete as if the glycerine were not present. Curschmann, in Ziemssens Cyclopædia, says on this subject. "I have never seen better developed vaccine pustules than at the Berlin Vaccine Institution, where such lymph is employed: and after my own numerous experiments I can assert that the certainty of result is not at all less than after the use of the pure lymph. Müller usually mixes the lymph carefully with two parts of glycerine and two parts of distilled water (by means of a small brush in a watch-glass), and preserves the liquid in air-tight capillary tubes. This mixture, according to M., can be still further diluted (one part to eight), without suffering any perceptible loss of its efficacy. Beyond this its activity is lessened in proportion to the degree of its dilution. Reiter obtained a feeble action

with dilutions consisting of one part of lymph to two hundred of distilled water, and he ascertained that, as a rule, in order to obtain any effect, a greater quantity must be employed the more the virus is diluted."

As has already been shown by the instructions to the Privy Council, no matter what form of virus is used, too much care can not be employed in selecting the subject, as well as the vesicle from which to obtain the supply. The virus from infants is always to be preferred rather than that taken from adults, and in no case should the result of revaccination be employed, no matter how near typical the vesicle may appear. Note well also the general health of the person from whom the vaccine is taken, so that, if any unpleasant results follow its employment, assurance can be given that such do not proceed from negligence in this direction.

The spurious or imperfect results of vaccination are dependent to a greater extent than any other upon the care taken in the selection of the virus. In 1867 the United States Sanitary Commission published a paper by Dr. Elisha Harris, giving the causes and results of spurious vaccinations, in both the United States and Confederate armies. As it is valuable in impressing the facts under consideration, a portion is reproduced here.

"(1). There were three kinds of spurious vaccination prevalent in the American Armies: (a) that which occurred in consequence of the loss of the specific property in the once good lymph or crust used; (b) that which resulted from the impairment or destruction of the vesicle as soon as it began to form, in the marching and excessive exercise of the soldier, and that resulting from the use of the sero-purulent matter of such destroyed vesicle in vaccinating other persons; (c) that resulting from the employment of matter from pustules or crusts that never had the genuine qualities of vaccine virus.

"(2). Scurvy and all asthenic dyscrasias of army life, not only prevented or greatly impaired the normal operation and effect of genuine vaccination, when soldiers with such conditions were subjected to vaccination, but they frequently became the causes of certain morbid phenomena, as obstinate ulcers, &c., which caused the greater part of the evils from vaccination during the war.

"(3). In the armies, it was never proved that the normal vaccine vesicle communicated any other than normal innocuous virus: but from carelessness in taking lymph at its perfection, and by neglecting to observe the rule, never to use lymph or crusts not perfect in all respects, and free from blood

or pus, frequent instances of inoculation with purulent matter or unhealthy blood happened.

“(4). By the use of matter, fluid or concrete (purulent or morbid in either case), taken from sores of any specific and enthetic character. As (a), erysipelatous and ecchymatous: (b), that of zymotic ulceration and destruction of tissues, and possessing the properties of a morbid poison: (c) syphilis, primary or secondary, whether communicated by a lancet, or contaminated vaccine points or crusts: or, as occasionally happened, the manifestation of syphilitic phenomena in connection with or supervening upon genuine or spurious vaccination.

“(5). The deterioration of genuine virus, by transmission through scorbutic and unhealthy persons, or when at the time of revaccination the protective power of a former vaccination was partly retained, or to the continued use of virus from adult soldiers, many of whom were suffering from unhealthy influences, instead of using lymph from the primary vesicles of healthy infants.

“(6). The destruction or deterioration of originally good virus by heat and humidity.

“These results substantiated the observation of Jenner as to the necessity of guarding against deterioration of the virus of cow-pox, which, losing its specific property, ceases to be prophyltic, army experience would go to prove that genuine vaccination is an absolute safeguard against small-pox.”

TO BE CONTINUED.

Translations.

By H. ILLOWY, M. D.

Curability of Meniere's Disease.

We must not take it in its strictest sense, when in the hurry of the moment speaking of our large asylums for the old and infirm, regarded above all from the point of view of the valuable clinical instruction that they furnish in diagnosing, and studying the march of chronic lesions, we have come to look upon them as a sort of living anatomo-pathological museums. The qualification incurability which is, unhappily,

very often with reason assigned to a great number of affections which these asylums shelter, ought never be taken in its strict and absolute sense. Firstly, taken in its true etymological sense, no patient should be regarded incurable; for what ever be his affection, and however desperate its probable or certain issue, he should and may with benefit receive all proper attention. And even when we employ it as synonymous, with unhealable, we are not at all justified in writing it on the card of the patient, at the side of the name of his malady, a sort of irrevocable "*Decree.*" It is to cast the soul into despair and a defiance to science.

Have we not had, and still have, numerous examples of appeal from these quasi irrevocable decrees of incurability; at least in those cases where there has been no lesion absolutely incompatible with the due performance of its functions, of any vital organ; and what malady reputed incurable to-day may not be curable to-morrow? These reflections, not by any means new, have been suggested to us to day by several facts with which M. Charcot entertained his audience at the last Sunday conference, which inaugurated his winter conferences.

Our readers have, without doubt, not forgotten the cases of vertigo *ab aura laesa*, which we brought before them last year about this time; we will call their attention more particularly to the patient of M. Charcot, who was subject to continual attacks of vertigo, which made it impossible for her to stand erect, or to walk, besides which she had from times crises of most fearful exacerbation, during which she felt drawn, as it were, to the most disordered movements; to throw herself forwards, or to turn a somersault backwards, or to spin around upon herself. The patient was in this state for ten years, during which period she never quitted her bed for a moment.

This affection, by its symptoms, by its progress as well as by its point of departure (a lesion of the internal ear), was evidently the vertiginous disease of Meniere; a disease hitherto regarded as incurable, and one that has resisted all the known curative means employed.

This patient was presented to us last Sunday by M. Charcot, cured, or at least in such a state of amelioration that unless she have a relapse she can be considered really cured.

She has not that continual vertigo, neither the exacerbation, nor the disordered movements, nor that sense of falling, followed at times by an actual fall. She walks with difficulty, it is true, and with some hesitation; like a person deprived for long years of the use of her limbs. But she can walk, and she walked, after several attempts, the whole length of the conference room, without a menace of a fall.

How has this cure been achieved? Simply by the continued use for a long time of the sulphate of quinia, in graduated doses,—(from 50 centigramms to one gramme).

On the 12th day, counting from the time when this plan of treatment was first commenced, a modification in her condition sufficiently remarkable, was observed by all connected with the service. The first effect was the suppression of the painful sensation of hissing that ordinarily preceded the grand crises and of the grand crises themselves; after that, the continual vertigo diminished in intensity and gradually disappeared. The most difficult part was to bring the woman to walk; firstly, from the excessive apprehension she had that walking would recall the exacerbations, and second, from the contracted habit of absolute repose for so long a period of time. It became necessary to resort to quasi violence to cause her to quit her bed and walk a few steps; and at last she was made to take long walks in the courts of the hospital.

That which most interests us in the result obtained, even considered empirically.

To prevent, however, the idea, capable of weakening the value of this fact, that the result might be accidental, or merely a fortuitous coincidence, we will state that the fact is not unique.

Several months ago, having been called by a young colleague in the environs of Paris, to see a young woman, who had been regarded till now, by some as an epileptic, by others as hysterical or hystero-epileptic; and in whom, after a minute examination, he recognized the vertiginous affection of Meniere, with diminution of audition on the left side, and the characteristic hissing, M. Charcot advised the administration of sulphate of quinia (without fixing the dose) but until the buzzing was produced, and to be continued until the vertigo ceased. He has since learned of the complete cure of the young woman, who has not since had a return of the vertigo.

It is, however, of the greatest interest to arrive at the reasons that have induced M. Charcot to have recourse to quinine, and to the peculiar action of this agent. The explanations of M. Charcot upon one point and the other, were very simple.

It is very evident that the idea of the influence sulphate of quinia, given in certain repeated doses, exercises upon the function of audition, and of the modifications that might ensue in the functional trouble, of which the ear is the seat in this disease, guided M. Charcot in these experiments, crowned with so much success.

It will be of interest to those who may have occasion to resort to this method of M. Charcot, to give here very summarily, as he gave it to his conference, the effects of sulphate of quinia upon audition, so well studied by M. Briquet in his treatise upon the "Therapeutic effects of quinia;" they will therein find every thing necessary to guide them in their observations.

"Troubles of audition, says M. Briquet, are the most constant effects of the absorption of the sulphate of quinia; a quantity of twenty-five to thirty centigrammes, taken at one dose, is sufficient to produce the buzzing in the ears.

The buzzing commences a short time after the ingestion of the medicament. It frequently begins in half an hour, or at most an hour, after the ingestion of forty centigrammes at one dose. Patients who take one to two grammes per day, generally begin to feel it after the third spoonful; that is after having taken thirty to forty centigrammes.

The period during which the buzzing continues varies according to the dose and the period during which it has been taken.

Thus in patients who take twenty-five to thirty centg. at one dose, it will not continue longer than half an hour, or at most two hours, in those taking forty to fifty centigrammes, at one dose, it will last for four days.

Patients taking from one gramme to fifteen decigrammes in solution, by spoonful, through a period of ten hours, will feel it for eight or ten hours after the last dose.

Those who continue this quantity for several days, will perceive it through the whole period of its use, and until fifteen hours after the last dose was taken.

In those taking the salt in doses of two to five grammes per day, will continue for twenty-four to twenty-six hours, after the last dose."

These indications, it seems to us, it is most necessary to know, since to obtain the results obtained by M. Charcot it seems that the patient must be kept in a continual state of buzzing in the ears, until the cessation of the vertiginous state.—[*Leader Gazette de Hopet. Decbr.*

Fissure of the Anus.

At the meeting of the Society of Therapeutics, October 27, M. Crequy reported to the society several new facts in support of his method of treating such cases, and which has already formed the subject of a communication to the Bulletin. He

employs pledgets of lint, steeped in a solution of chloral, 1 pt.; water, 30 pts.

M. Dujard. Beaumetz has at present under treatment a case of fissure of the anus; but on account of the difficulty of introducing into the anus pledgets steeped in an aqueous solution, prefers to use a solution made with glycerine: Chloral, 1 pt. glycerine, 30 pts.—[*Bull. Gener. de Therap., for Nov.*

Elastic Ligature for Fistula in Ano.

Prof. Courtoy employs this method exclusively; the explorations of the fistulous tract constitutes very often in itself the first part of the operation. The passage once explored, a thread or tube of caoutchouc is passed through it, the other extremity of which is brought out at the anus. The operation is generally very easy if the parts have been previously well lubricated with oil. Simple threads of caoutchouc or tubes of good stiffness may be employed; these last, provided that their calibre be very small, are preferable. Drawing then on the ends of the tube, so as to be assured that that part passed into the fistula is sufficiently distended, there only remains to fix the tube in this state of extension, by a double knot well tied up, and if necessary, retained in place by a waxed thread. During the first hours the constriction is painful, but the pain diminishes very rapidly. To spare the patient this pain he is placed in a condition of somnolence, and incomplete insensibility, by hydrate of chloral and morphia; the administration of which is begun several hours before beginning the operation. From this moment all further surveillance is unnecessary.

None of the patients have had hemorrhage, none have had pain so strong as to necessitate the resort to sedatives. Many of them after the first day were able to sit in a chair, walk up and down the room, and even to go out. On the third day the greatest number returned to their usual occupations.

Section was complete in a period of time varying from six to fifteen or even eighteen days; the average being from nine to ten days. At this period the wound is cicatrised, or almost nearly so. No other attention required than to touch it with a hair pencil dipped in nitrate of silver. The cure may then be regarded as certain. The greatest care as to cleanliness and the daily use of mild aperients is all the attention required during the period of constriction.—[*Montpellier Medical.*

Baths of Chloral Hydrate in Confluent Small-Pox.

At the Society des Hospitaux, after the reading of the report upon prevalent diseases, M. Dujard. Beaumetz, at present in charge of the temporary female hospital, remarked that he had obtained the most beneficial effects from full baths of chloral hydrate, in cases of confluent small-pox; the baths were used at the period when the epidermis detaching itself *en masse*, leaves the dermis exposed.

The dose of the chloral for a bath never exceeded twenty grammes; the results were not alone a thorough disinfection of the patient, but also a prompt cicatrization of the skin.—[*Bulletin General de Therapeut*, Nov.

Hypodermic Injection of the Neutral Sulphate of Atropine in a Case of Reflex Contraction.

At the Chirurgical Society (Paris) the Secretary-General read a report of three observations of M. Spillman. On the 11th July, 1875, this surgeon saw a child sixteen years of age in whom the movements of the elbow joint had become very difficult, on account of a fall on that part of the body; there was, however, neither fracture or luxation. It was treated with cataplasms and compresses of lead water. The treatment however, gave no results; and although there was neither redness nor tumefaction of the elbow joint, still the forearm remained flexed; the biceps and triceps were hard like cords, and all attempts to straighten the limb caused very severe pain. Explorations of the brachial plexus and of the vertebral column revealed no lesion. Having exhausted every thing recommended in such cases, M. Spillman recollected that M. Dubrueil had reported to the society that in a similar case he had resorted to the hypodermic injection of Morphia, and was about to adopt this when a case came to his knowledge in which the injection of the neutral sulphate of atropia had been followed by the most happy effect.

The injections were made and repeated through a period of time and the patient was entirely cured. The dose injected varied from 1, to 3 milligrammes, according to the toleration of the patient for the agent.—[*Bulletin Gen. de Therapeut*, for November.

*On the Application of Bromide of Camphor in
Therapeutics.*

Since our previous communication about the therapeutic action of bromide of camphor, this remedy has been the object of our researches, which we shall briefly recapitulate.

In the first place, we may say that the chemical preparation of the bromide of camphor has become as perfect as possible; and in the support of this assertion, we shall recall that in the session of the academy of science, held in the Institute of France, August 9, 1875, Prof. Wurtz has exhibited to his colleagues magnificent crystals of bromide of camphor, obtained by Dr. Clin.

But what interests us more from a medical stand point is to know the results obtained from the use of bromide of camphor. The inaugural thesis of Dr. Pathault* gives us in this regard important information.

After having summed up the experiments made in France as well as in England, and verified and completed them on several points, the author reports a great number of observations, some of them made in the different hospitals of Paris, others taken from foreign authors.

We find in the first place two cases of chorea; the first communicated by Dr. Desnos, physician of the hospital *La Pitié*, was a girl, eighteen years of age. Bromide of Camphor was prescribed December 5, and the dose was successively increased from 2 dragées of 10 centigrammes each to twelve. December 18th, the patient left the hospital *considerably improved*.

The second case reported by Dr. Emery, house physician at *La Pitié*, under Dr. Gallard, refers to a man, to whom chloral in strong doses, was first administered, but without success. *Bromide of camphor* was then used. The patient took as many as fifteen dragées a day. He improved rapidly and left the hospital entirely restored.

Dr. Pathault then points out the benefits derived from Bromide of Camphor in *delirium tremens* by Deneffe and Ottara; afterwards he examined the results obtained in *Hysteria* and *Hysterical symptoms*. After quoting the favor-

*Des Propriétés, physiologiques du Bromure de Camphre et de ses usages, thérapeutiques Paris 1875, in 50 pages with six figures (Physiological properties of Bromide of Camphor and its therapeutical uses, Paris 1875. Published by Adrien Delahaye.)

able opinions of Drs. Hammond, Lawson, and of Professor Tommasi, he relates at length the observations made in France.

With a patient in the service of Dr. Vulpian, subject to various hysterical phenomena, especially to *tremens* and *cardiac palpitations*, *bromide of camphor* given in doses of from five to twenty dragees, or about twenty grains, dispelled all symptoms.

Dr. Mathieu has used this therapeutical agent with a lady about thirty years old, who had palpitations, fits of heat alternating with paleness of the face, agitated sleep, an exaltation of moral sensibility, erratic neuralgias, convulsive tremors, partial anæsthesia of the limbs of the left side. "The ordinary anti-spasmodics and narcotics not having produced any sensible improvement, 'I resorted,' says Dr. Mathieu, 'to the dragees of bromide of camphor of Dr. Clin; I commenced with four dragees only, which produced from the first night a relative calm. In the following nights sleep became again normal; the pulse, which had reached 135 pulsations, fell to 80 and 85, and became regular. These results were due to *bromide of camphor*, for I had omitted all other remedies, bromide of potassium included."

A woman of the service of Dr. Potain, in the hospital "Necker," had her hystero-epileptic fits diminished by taking three to ten dragees daily. Another hysterical patient in the same ward, liable to cardiac palpitations, with rising of the thyroid gland, experienced a considerable improvement and suffered less from insomnia after taking for some time eight dragees of bromide of camphor daily. Among other phenomena, the pulse was observed to fall from 90 to 68.

The following paragraph is devoted to *epilepsy*. Of the ten cases recorded, the first nine have already been published by Dr. Bourneville. We shall therefore only notice the last, which will suffice to interest our readers.

The patient in question, of Dr. Charcot's service, was thirty-eight years of age, and epileptic from the age of twenty years. She took successively from five to nine capsules of bromide of camphor of Dr. Clin, 1 gramme to 1 gr. 80 (15 to 28 grains); after a treatment of five months, it was noticed that while in the five months of 1874 this woman had had fifteen fits and twenty-two attacks of vertigo; she experienced only eleven fits and sixteen attacks of vertigo during her five months' treatment in 1875. Is that not a decided improvement, considering the long standing of the disease?

It is not out of place to mention an observation communicated to the Medical Society of Reims, by Dr. Deies: X—, 38

years of age, is epileptic from the age of fourteen years. Having first been treated with bromide of potassium without any apparent results; Bromide of camphor was administered on October 1st. From that moment a sensible improvement took place. Before this treatment, X. had an attack every eight to ten days; from October 1st to December 2nd he had only two fits. He was five weeks without being sick; while from the age of fourteen years, he had one attack at least every fortnight.*

On account of the very interesting details which we have given about the affections of the nervous system, we must be brief about other diseases in which *bromide of camphor* has been successfully prescribed.

Mr. Pathault records two cases of *Dyspnœa*; one relating to a young man twenty-three years of age, subject to fits of dyspnœa, of which he was entirely relieved by the use of bromide of camphor; the other, a patient of the service of Dr. Potain, who was greatly relieved by this remedy.

The author informs us afterwards that in a case of neuralgia of the trigeminal nerve, Dr. Desnos has derived good effects from the capsules of *bromide of camphor*.

The sedative properties of *bromide of camphor* pointed logically to its use in certain affections of the urogenital organs; this has indeed taken place, and we can say now that the results already obtained are very encouraging:

1. A patient of Dr. Vulpian's ward, suffering from nocturnal pollutions, has been considerably relieved by the dragees of *bromide of camphor* of Dr. Clin.

2. A female patient, whose case has been reported by Dr. Tiredey, physician of the hospital "Lariboisiere," was subject to attacks of very painful vesical and anal tenesmus, with very frequent micturitions, complicating a peri-uterine plegmasia. She was remarkably calmed by the capsules of *bromide of camphor* prepared by Dr. Clin.

3. A man, forty years of age, whose history has been related by Dr. Desnos, was experiencing for three months pain in the hypogastric region, which extended towards the testicles. They were much increased by walking, by moving about, and by the contact of urine with the mucous membrane of the bladder. The patient dreaded the very frequent inclinations to urinate, which were accompanied by a very scant discharge, and answered the calls of nature only under the most intense sufferings. According to Dr. Desnos, these

* Bulletin de la Société Médicale de Reims, 1874, page 222.

symptoms were to be ascribed to nervous disorders, much more than to a genuine catarrh of the bladder. From April 1 to 17 the patient was treated with dragees of *bromide of camphor*.

When he left the hospital April 17, micturition was normal, the pains of the bladder seemed to have already disappeared. He feels sometimes shooting pains; but they are transient; they cannot be compared with the persistent suffering he complained of when he entered the hospital.

Dr. Lannelongue, surgeon in the hospital "Bicetre," who had an opportunity of carefully studying the action of bromide of camphor in the affections of the uro-genital organs, has thus stated his opinion: "In the cystitis of the neck, the action of bromide of camphor shows itself quite rapidly: 1st, in neuralgic cystitis, when the cystitis is painful, and when the pain does not depend on any organic alteration; 2nd, in cystitis of the neck of a congestive origin, connected with vascular alterations of the neck, and depend upon manifold causes, if catarrh of the bladder complicates the cystitis, the effects are nearly null; 3, they are decided, when the catarrh is slight, likewise when a more or less acute prostatitis is connected with cystitis of the neck; 4, finally we will note a case of priapism, recorded quite recently in the 'Progres Medical,' in which *bromate of camphor* has rendered service."

The above mentioned facts, noticed by both foreign and French physicians, do not permit us to doubt the therapeutical action of *bromide of camphor*. From a pharmacological stand point it is to be regretted that this remedy cannot be administered in the form of syrup. In return, we are indebted to Dr. Clin for two preparations made with the greatest care; the *Capsules* and *Dragees*, which have been prescribed in all cases observed in France. The *bromide of camphor* employed is a very pure product, and the greatest care is taken in order to insure the perfect accuracy in the quantity. The dragees contain each ten centigr. of bromide of camphor. The capsules which are gluten coated are rapidly dissolved in the stomach, and contain each twenty centigr. of bromide of camphor; they are, therefore, preferable when the remedy is to be administered in large doses. This strict accuracy in the composition of a remedy is a precious quality, for the physician can modify his prescription according to circumstances.—[*Gazette de Hospital*.

Proceedings of Societies.

CINCINNATI MEDICAL SOCIETY.

Reported by B. STANTON, M. D., Sec'y.

The Society met January 4th, 1876, the President, Dr. Comegys in the chair.

Dr. Tauber read a paper on Laryngoscopic instruments.

Dr. Mackenzie then reported the following case :

Mary B—, aged 13. This patient was in the office on the 27th of October, and was then seen by Dr. Murphy, who regarded her as suffering from an attack of acute tonsillitis and pharyngitis with some follicular exudation upon the tonsils. She was accompanied by two or three of her brothers and sisters, who were affected in like manner. Two or three days previously, a sister had died of what the homœopathic physician in attendance, pronounced dyptheria. Her father says that she had convalesced from this and was sitting up, although still somewhat weak.

On the morning of the 23rd of December, while playing with some toys, she was suddenly seized with what the mother called convulsions. Upon careful inquiry in regard to the phenomena which occurred at the time, I received the following information : She became exceedingly exhausted and had twitching of the muscles of the face, but no convulsive seizures of any of the muscles of body or extremities. Her face was flushed and her mother says that she seemed conscious of what was going on about her. Upon questioning her, however, on this point, she said that she did not recollect what occurred at the time of the so-called fit, but distinctly remembered that, before it came on she had a burning sensation in the abdomen, which rapidly extended upward to her head. She had several similar attacks that afternoon and night, but they then ceased, and for more than 24 hours before I saw her she had had none. Along with these symptoms there was extreme irritability of the stomach, so that she was unable to retain anything. At no time of her illness was she in the slightest degree delirious, nor were these attacks followed by anything like coma. Upon the occurrence of this attack, a neighboring homœopathic physician had been sent for, and was in attendance up to the time that I took charge of the case. On the morning of the 25th, he remarked to the parents upon the extreme slowness of the pulse, which had probably not been observed before, as he seemed to regard it as a fresh symptom, and one of the most serious augury.

I saw the patient on the 25th of December, at 3 o'clock, P. M. She was rather a delicate looking child, spare and anæmic. The cheeks and prolabia had a slightly dusky hue. Her mental func-

tions were perfectly normal, and she answered questions promptly and intelligently. Complained of great exhaustion, and frequently said: "How tired I am." Complained also, of feeling very warm, often moving from one side of the bed to the other in order to find a cool place, and keeping her hands and arms constantly uncovered. Notwithstanding this, her face, arms and hands were quite cold to the touch, and her feet were by no means excessively warm, although warmer than her hands. There was no paralysis either of the facial muscles or those of the extremities, and sensation, with the exception of the subjective feeling of warmth was quite natural. The special senses and the pupils were in all respects perfectly normal. Temperature in the axilla 97° , pulse 22 beats in a minute, rather small and soft, but quite regular.

Thinking that possibly all the cardiac impulses might not be transmitted to the radial artery, I placed my ear over the heart, but its pulsations were the same in frequency as those of the pulse, viz: 22 in a minute. The stroke was rather quick, the two sounds quite distinct, and unaccompanied by any murmur, and the impulse of the heart against the chest was quite perceptible. The action of the heart resembled exactly that which may be produced in the lower animals by moderate excitation of the pneumogastric nerves, a short systole followed by a long diastole. The respirations were 24 in a minute, occasionally sighing, but performed without the slightest labor. No abnormal pulmonary sounds could be heard on auscultation. Tongue slightly furred and moist. Nothing unhealthy observed on examination of the throat. The patient complained constantly of thirst, and very frequently of nausea. She vomited every little while. The vomited matter consisted of little else than the water which she had drank. There was a good deal of tenderness on pressure in the epigastric region, but no pain or tenderness elsewhere. Bowels were moved the day before. She had never menstruated, and her mother said that the females of the family did not usually menstruate much before their sixteenth year. I ordered her a teaspoonful of brandy and three grains of carbonate of ammonia every hour; if the vomiting continued a small blister was to be applied to the epigastrium, and she was to take small quantities of milk and lime water frequently.

Her father called at the office on the 27th and said as the vomiting had continued the blister had been applied; it rose well and seemed to relieve her of the nausea, so that on the 26th she had been able to retain food and medicine. At 12 o'clock on the night of the 26th when he left to go to bed he thought her better; shortly afterwards, however, her sister who was nursing her awoke him saying that she seemed worse. He found her alarmingly weak and apparently sinking, and before morning she was dead. Nothing extraordinary had occurred. She had no convulsions and retained her consciousness and intelligence up to the last.

Dr. MacKenzie remarked that the pathology of this case was somewhat obscure. He considered it, however, as dependent on

diphtheria. The throat affection with which the child suffered was probably one of those cases in which the peculiar product of diphtheria, the exudation, was absent, or present in but small quantity and for but a short time. Some years ago he had seen a case in which he regarded the throat affection as simply tonsillitis, until about three weeks afterwards, when the supervention of paralysis of the soft palate and pharynx indicated the true nature of the disease. Supposing the case of this little girl to have been one of diphtheria, there are some points worthy of note in it. In the first place, the long interval between the recovery from the throat trouble and the occurrence of the sequella (nearly two months,) whence the usual time is about three weeks; in the next place the character of the secondary symptoms. Generally, the sequellæ of diphtheria are paralytic in their character; but in this case they must have been irritative, as the cardiac adynamion could only be accounted for by supposing an inhibitory influence transmitted along the pneumogastric nerve, slowing and ultimately stopping the heart's action. He had found but little written on this subject. Trousseau does not mention it at all, and Pertel, in Ziemssen's Cyclopædia, merely refers to some cases in which the cardiac pulsations become very feeble. Two cases are reported by Sir William Jenner, in his work on diphtheria, in which the symptoms, especially those referable to the heart were analogous to those present in the case reported, and both these cases were fatal. In one of Jenner's cases the irritability of the stomach was also present to a very marked degree.

Dr. Murphy said that in October the father came to his office with this child and three others. He had lost a little girl a short time before with what the attending physician had called diphtheria. This child, as all the other children, had a congested pharynx, a frequent pulse, cool hands, and complained of weakness. Chlorate of potassa, quinine, and tinct. cinchon. comp. were prescribed. Good diet, quiet and rest were recommended. Under these they gradually improved. In Dec. he was called to see one of the children who he found had tonsillitis. On the 25th of December Dr. MacKenzie visited the case, and has given a history of it. Dr. Murphy requested the man to make a thorough examination of his cistern, cellar, etc., to see if he could not find some local cause for the sickness in his family, but none was found.

Dr. Murphy said he had recently been called to see a boy 3 or 4 years of age whom he found laboring under a pneumonia on the right side. It was then in a state of resolution. On examining the tonsils he found them covered with a diphtheritic exudation; this subsequently extended to the soft and hard palate. On investigation it was found that a waste pipe from the house connected with the sewer without proper traps, and sewer-gas was escaping into the house.

Was the diphtheria caused by the escape into the house of the sewer-gas? Did the diphtheria precede or follow the pneumonia?

Was there any connection between the diseases? are questions which arise.

Dr. Comegys mentioned an incident where the opening of a sewer in the vicinity of a boarding school gave rise to such an outbreak of pneumonia, that it became necessary to close the school.

Dr. Murphy said the treatment should depend on the character of the disease. He thought constitutional treatment more important than local. The sore throat he considered only a local manifestation of a constitutional disease. He used but little local treatment. Ice sometimes gave a feeling of comfort to the patient.

Dr. Hough said he had tried chlorate of iron in some cases with good results.

Dr. Comegys said he used a saturated solution of chloride of sodium in children; injecting it with a syringe against the fauces. Ice or ice cream as a local application.

Dr. Tauber said that in Germany cupri sulph. was used a great deal. He thought local treatment as well as constitutional was required.

ANNUAL MEETING OF THE DELAWARE COUNTY MEDICAL ASSOCIATION.

Reported by F. W. MORRISON, M. D., Sec'y.

The annual meeting of the Medical association of Delaware County occurred on the second Tuesday in January; Dr. R. Hills, President, in the chair.

After reading the minutes a variety of business was transacted of a miscellaneous character; among which was a memorial read by Dr. E. H. Hyatte, asking the Legislature to pass a law creating a bureau of health, accompanied with a bill for an appointment of a health commissioner and defining his duties. Objection being raised to certain portions of the bill, it was referred to a committee for amendment: Drs. Williams, Hyatte and Hendrixson, committee.

The Society now proceeded to the election of officers for the ensuing year. Dr. C. Welch was elected President; A. E. Westbrook, Vice President; F. W. Morrison, Sec'y; J. M. Cherry, Treasurer; W. T. Constant, Librarian; S. W. Fowler, Corresponding Secretary. The valedictory of the retiring President, Dr. R. Hills, was next in order. For over an hour the Doctor entertained the members on "The Early History of the Practice of Medicine in Delaware County." After a few preliminary remarks he referred to his 46 years of residence here; the early settlements, and his

sources of information. That his sketches though generally accurate in date, would be limited in detail, as they covered a period of nearly fifty years, and necessarily many personages to represent.

First, Dr. Reuben Lamb, who settled in Delaware County in 1804; was a very successful practitioner, kind and social. Then Dr. Spalding, from New Hampshire; located here in 1809, was moderately successful in practice and a great talker. Next was Dr. Hanley in 1811; Dr. McClary, 1812; Dr. Wm. Cisney, 1813; Dr. Butler, 1815; Dr. E. Copeland, 1817, who was a self-educated man and a good physician; and so on up to 1850 in this order; giving a very brief but comprehensive biographical notice of thirty physicians during the first half of the present century. His subject was every now and then spiced with anecdotes characteristic of the men whose various histories he was so graphically but impartially writing. When the doctor closed he received a vote of thanks as a mark of the high appreciation held of his statistical literature of the profession here in the past. The association then adjourned to a dinner given by the retiring president; after which the members again convened. The recently elected President, Dr. C. Welch, in the chair; having previously delivered a short but very appropriate address. First was a report by Dr. John A. Little of a fatal case of scarlatina, or death perhaps from sequences of the disease in the same family he referred to at the last meeting. *History:* First child in this family was taken sometime in the fall; four weeks after this two others took it and died, and lastly two more children were taken. The one who had it in the lightest form, a mild case, recovered, and was sprightly; suddenly took a pain in the head, followed by convulsions and died in thirty-six hours. This case shortly after first illness had albuminous urine; gave treatment and it disappeared. Did not examine urine in the last attack. Symptoms would indicate uremic poisoning. Was informed the child had eaten very heartily a few hours before taken sick; which might have something to do with the spasms and subsequent coma. He remarked that unpleasant consequences often follow mild cases. Thinks that exposure will not increase the predisposition to relapses. Fatal results occur whether exposed or not. In nephritis with albuminuria would give first digitalis; then in conjunction use the iodide of potash; the former acting locally on the circulation of the kidneys. Discussion continued by Drs. Blymyer, Hills and White.

Following this a paper was read by Dr. W. T. Constant, on Tetanus; naming the different varieties of this nervous affection; and its causes. Explained how the spinal chord is the seat of this disease by referring to excito-motor action; and in this connection referred to the three forms of spasmodic disturbance to which the muscles are liable: Tetanic, chorice, and epileptic. Diagnosed between tetanus and hydrophobia. Said that morbid conditons of the nervous system may depend upon centric or excentric causes; and while there can be no doubt that the spinal marow is the seat of

this disease, no pathognomonic change has been found in it. The Doctor now reported a case of *Traumatic Tetanus*, originating from a burn. Patient six years of age; a boy of nervous temperament. Muscles soft. The tetanic symptoms did not appear until the eighteenth day after the injury. October 15, 1875. Spasms of a tonic character, which increased until there was rigid contractions of the body; with *opisthotonos*, also *trismus*. Abdomen tense; knitting of the eye brows; pain in stomach; symptoms aggravated on motion; pulse 110 for 10 days; intellect clear; skin moist, clammy, and profuse perspiration; temperature high, approximating at times 110°. October 25th. Disease assumed a milder form. Duration of this latter condition 35 days. Entire duration of disease 45 days. Patient doing well previous to nervous symptoms; although the burn covered about one-sixth of the body, involving right side and back and part of right shoulder. The clammy perspiration with exhaustion continued during the first fifteen days of the attack. Somewhat paroxysmal; not depending for their origin on severe muscular contraction.

Treatment for the first twelve or fifteen days: Gave morphine; gave quinine in large doses; repeated on an average every alternate day for twelve days, and with marked success. "What was most gratifying in the use of quinine was its immediate remarkable, beneficial results; every time it was given displaying its magic power, the same as in intermittent." Medication was directed to relieve constipation, and the burn was treated during this time mainly by bread and milk or flax seed poultices; at the suggestion of the consulting physician Dr. Hills.

Dr. E. H. Hyatt entertained the association for three fourths of an hour in an able paper on the therapeutical action of *Digitalis*. After referring to the active principals of this drug, and the views usually entertained by the profession; of its action as a nervous sedative and depressor of the heart's action. He said that facts had been urged of late which lend force to the opinion that digitalis is primarily a direct cardiac stimulus, instead of a cardiac sedative. He then dwelt at great length on its influence as indicated in weak heart action; increasing the muscular force of the heart, and also arterial tension, while it slows the pulse in frequency. Also indicated in mitral or aortic insufficiency; dilatation of the heart or left ventricle. It lengthens the diastolic pulse, while it increases the force or diastole of the heart. Is an especial agent in cardiac dropsy; not from its direct diuretic power, but from its influence in heart action; but is contra-indicated in hypertrophy. The Doctor next referred to its power over the functions of the vagus nerve; and its direct power over the nerve of voluntary motion. Its influence on blood vessels through vaso-motor nerves; also its action upon the local circulation of the kidney. Good in uterine hemorrhage to arrest its flow; and as an anaphrodisiac, annulling the activity of the sexual organs. Told of its effects upon the lower animals. That it is a powerful stimulant to the

muscular system. Finally closed by placing digitalis high among the remedial agents, when indicated in cardiac trouble, or when manifested to the central organs of the circulation.

Discussion on the above papers by Drs. Hyatte, Hendrixson, Fowler, Little, Constant, Westbrook, McIntire, Hills, Mercer, McCann and others.

On motion, Association adjourned to meet the second Tuesday in February next.

CENTRAL OHIO MEDICAL ASSOCIATION.

Reported by O. JOHNSON, M. D., Secretary.

The Central Ohio Medical Association met at the City Hall in Columbus, February 3, 1876. The President, Dr. Nourse, called the meeting to order at 11 o'clock.

Dr. Landon, Chairman of the Executive Committee read a report of the Committee, which was received.

Dr. Stein read a paper reviewing the small-pox epidemic in Columbus this winter. Small-pox had existed in the city since October 1875—three hundred cases had been reported up to January 1, 1876—and about one thousand cases in all had been treated up to the present time. Vaccination had proven very effectual in preventing the spread of the disease in this epidemic; there was great difference in the susceptibility of persons in taking the vaccine virus. It was safer to be re-vaccinated although good and true vaccination he thought did not run out. Many other items were spoken of in the paper.

Dr. Hyatt, of Delaware, opened the discussion on the efficacy of re-vaccination. He thought the safest criterion to go by was to be re-vaccinated every five years.

Dr. Wirth spoke in review of *Dr. Stein's* paper. The profession at large had settled on the point that frequent vaccinations were necessary. Was of the opinion that vaccination did run out.

Dr. Kinsman spoke on the distinction between small-pox and varioloid. He was well persuaded of the importance of re-vaccination. There was a point up to which vaccination was perfect in its protecting influence—after that the system was not perfectly protected. There is in certain organisms a peculiar susceptibility to the contagion of small-pox and this fact has given rise to much discussion.

On motion of *Dr. Landon* the courtesies of the Society were extended to *Dr. Maris*, and he was requested to read a paper on "Animal Life," at this hour.

Dr. Maris was then introduced and proceeded (after thanking the Association for the invitation) to read his paper giving in brief

the distinction between animal and vegetable life, dwelling on the origin of animal life in particular.

On motion of Dr. Landon the thanks of the Association were tendered Dr. Maris for his able and interesting paper.

AFTERNOON SESSION.

The Association met, the President in the chair.

Dr. Hyatt resumed the discussion of small-pox, and spoke on the great importance of vaccination and revaccination, that vaccine was more protective than variola itself.

Dr. Morse spoke on the importance of revaccination—that in some countries of Europe the law enforced revaccination.

Dr. Andrus spoke in reference to the immunity of individuals from small-pox by vaccination, and the importance of vaccination on account of the peculiar susceptibility of some persons to the disease.

Dr. Hyatt spoke of the exemption of Delaware from small-pox on account of thorough vaccination, humanized virus was the best, and he thought there was no possible danger of communicating other diseases by vaccination.

Dr. Andrus thought there was evidence of syphilitic diseases having been communicated by vaccination.

Dr. Landon presented Dr. Helmick, of Commercial Point, for membership, who was elected, signed the Constitution and paid the initiation fee.

Dr. Ramsey, of New Albany, spoke of the susceptibility of some persons to small-pox while others were exempt, and it was, therefore important that all should be revaccinated.

Dr. Landon referred to a paper published in the transactions of the State Medical Society in which it was claimed that syphilis was never propagated, or transmitted by vaccination.

Dr. Wirth thought that vaccination in many cases did not run out and that this truth had been verified over and over again.

Dr. Wagenhals advised revaccination although the cicatrix on the arm might be good.

Dr. Andrus spoke of instances of repeated attacks of variola and varioloid, but these were exceptions to the general rule.

Dr. Wagenhals thought it was best to be always on the safe side and be revaccinated.

Dr. Follett, of Granville, was not afraid of small-pox, but he would first be vaccinated if he was called to treat a case of small-pox.

Dr. Landon said that Dr. Follett lived in a cleanly village and was therefore exempt from the scourge. He claimed that if the real disease exempted a person from having the disease then the modified form did.

Dr. Jones, of London, spoke in reference to the preservation of vaccine virus—that it had been kept for six years done up tightly in dry paper.

Dr. Landon stated that *Dr. Hamilton* was not able to be here to-day, and moved that the discussion on small pox now close and we proceed to the discussion of diphtheria, which was carried.

Dr. Morse then opened the discussion on diphtheria, and spoke first of its being a constitutional disease with local manifestations, in most respects having the character of a zymotic disease. In the treatment he used chlorate of potassa internally, and either the chlorate alone, or chlorate and hydrochloric acid as a gargle. He gave quinine, iron and a strong decoction, hot, of *eimicifuga*, which seemed to relieve the irritability of the nervous system, abating many symptoms dependant thereon, and hastening a favorable termination. When there was much febrile excitement he used *spts. ætheris nitras*, with tinc. of aconite and tinct. *verat. viride*. When paralysis followed he treated it upon general principles as he would when it was a sequence of any other disease.

Dr. Hyatt considered it according to the latest authorities, both a local and constitutional disease, but was inclined to the opinion that it was primarily a local disease—the constitutional symptoms manifesting themselves afterward—and spoke of the difference between it and membranous croup. In the treatment he relied on quinine and some of the preparations of iron, with stimulants.

Dr. Morse combatted the idea of its being more of a local disease than a constitutional one, as claimed by *Dr. Hyatt* in his closing remarks.

Dr. Andrus was certain that *Dr. Hyatt* was mistaken in claiming that it was primarily a local disease. In the treatment he gave chlorate of potassa, quinine, and tincture of muriate of iron, milk punch, etc.

Dr. Follett. According to his experience this disease was very prostrating to all who had it. He spoke of the origin of the disease as being a vegetable parasite. In the treatment, he adopted sustaining measures, gave quinine and whisky punch, wine with tannin as a gargle. He related a case that was very low and saved by giving a large amount of stimulants, iron and all the nourishments the patient would bear.

Dr. Landon spoke of the treatment in this disease. He gave quinine, tincture of muriate of iron, and gave chlorate of potassa, and milk punch as remedies and prophylactics. He thought that if the profession generally would be more active in their sustaining treatment, not near as many cases would prove fatal.

Dr. Wirth spoke of a mode of dying that was common in the disease, where the membrane or exudation extended into the larynx, trachea and bronchial tubes. He thought there was no benefit to be derived from the operation of laryngotomy or tracheotomy.

Dr. Pooley claimed that there was about 23 per cent. of all the patients operated on in this disease, saved thereby.

JACKSON COUNTY MEDICAL SOCIETY.

Pursuant to a call, a number of physicians met in Brownstown, Jackson county, Indiana, on February 9th, 1876, and organized a Medical Society, auxiliary to the State Medical Society, with name as above.

A constitution and by-laws were adopted; the code of ethics of the American Medical Association was also adopted. The following officers for the ensuing year were elected:

President, James C. Wells, Mooney; Vice Presidents, A. C. A. Bain, Brownstown, D. J. Cummings, Houston; Secretary, George W. May, Mooney; Treasurer, Jos. A. Stillwell, Brownstown; Board of Censors, Louis I. Stage, Vallonia, Geo. W. May, Mooney, M. V. Wilson, Medora; Librarian, E. T. Finch, Freetown.

Stated meetings to be held at Brownstown quarterly, on the first Thursday of February, June, October and December.

Articles of Association were filed with County Recorder.

GEORGE W. MAY, *Sec'y.*

Clinics.

Prof. J. H. Pooley's Surgical Clinics, at Starling Medical College, Columbus, O. Reported by McKendree Discroll.

Charles Greene, æt. 18, born near Lancaster, O. This patient was a colored boy of medium size, who was suffering the inconvenience of possessing a limb affected with a variety of elephantiasis. The type diagnosticated was "elephantiasis arabum;" this was the condition of the right limb. The following measurements were then taken:

Right foot around base of metatarsal bones	16. 5 in.
Left " " " " " "	8. 0 "
Right " " tarsus just in front of ankle joint	17.75 "
Left " " " " " "	9.75 "
Right " " instep	19.00 "
Left " " " "	12.28 "
Right calf, around middle	17.75 "
Left " " " "	12.25 "
Right knee, around	22.00 "
Left " " " "	13.00 "
Right thigh, " "	17. 5 "
Left " " " "	15. 0 "

The boy was now dismissed, and the Professor stated what he would like to do in the treatment, if the patient would consent but unfortunately the patient, at least for a time, declined an operation. Following an example set by Butcher and others, he would like to attempt a cure by cutting down and tying the femoral artery. In such cases as this it was said one might beneficially utilize the elastic bandage. The opinion of the Professor was that such cases as the above should not be readily given up as incurable, but that strenuous efforts, yet judicious ones, should be made to, if not entirely cure, at least lessen the disadvantages of the evil.

Katie Ringhausen, æt. 19, born in United States. This patient's visit to the college was prompted by a serious condition of the right ankle, which was found to be considerably swollen, imparting a bogginess to touch, slightly red, and moderately warm; considerable pain had been experienced in its locality. The worst condition of the ankle came on a few days prior to her visit, but the initiatory attack had come on about four months before, and had been lanced; from that time until this date very much trouble had been experienced. The Professor of Practice, into whose hands the patient had fallen in the first place, was present on this occasion, and volunteered to give as much of the history as he could. "The patient came to me with a swelling on the inside of the right ankle, a little below the maleolus; the swelling progressed, and four months ago I opened it; as soon as possible the girl, who is a hired girl, went to work, and this contrary to my explicit order. She continued working until a few days ago when the trouble which she now suffers with came upon her." Professor of Surgery diagnosed, advancing inflammation of the ankle joint. Immediately preparations for treatment were made, but when the Surgeon approached her for the purpose of examining the ankle more closely before commencing procedures, she positively declined having any thing done with it; the treatment was then given verbally. Professor said his treatment would have been to lay open the swelling, and, through the efficacy of the plaster of paris bandage, to keep the part in absolute rest. The importance of rest in these cases was forcibly illustrated by saying that Demosthenes expressed the stages of renown in oratory when he said they were, 1st, action! 2d, action!! 3d, action!!! The requisites in cases like this one were, 1st, rest! 2d, rest!! 3d, rest!!!

Stephen Jones (colored), æt. 35, born in United States. This patient had been aggravatingly troubled ever since 1865; he had had any amount of attacks of gonorrhea, "wholesale and retail." Two or three months after last attack the urine ceased to flow; he went to a doctor and got relief; again the urine stopped flowing, the obstruction to its passage increasing gradually. At this time patient came from Cleveland to Columbus, and obtained help. Two or three weeks "past" arrival in Columbus, the flow of urine was again greatly obstructed; was helped by a doctor again. Four or five months after this an obstruction again occurred, and the doc-

tors could not pass an instrument! Dr. S. Loving then made a perineal section, and soon relieved the great anxiety of the patient, as well as his condition. This operation was in 1866, and the patient did well for some years. For the last two or three years more or less trouble had been experienced, and now an infinitesimally small stream could only be passed; in the language of the patient himself he was "pretty bad off." After a general discussion of stricture, which, in this case, was readily diagnosticated, the patient urinated in presence of the medical class. The stream was very small, and, at first exit from meatus was projected with some force, but when the pressure was taken off by the opening made through stricture by pressure, the force was abated, and the urine dribbled away. Upon the endeavor to introduce sounds it was found that the stricture was deeply located, very tight, about an inch in extent, in the bulbous membranous urethra. The sounds used were of solid steel and Nos. 18, 8, 7 and 4. The attempt to introduce the sounds from the large size downwards was protracted, and yet successful introduction was not accomplished.

A man named Stemmer, æt. —, born in Germany. This was a man of wonderful muscular development who had recovered from fracture of the clavicle produced by violent muscular exertion, without treatment. It was evident that a better recovery had been made in this case without treatment than is made in many cases of the same kind with treatment. The splendid recovery in this case was attributable to the fact that soon after the fracture the man had an attack of fever, and as a consequence was kept flat on his back, this position permitting the ends of the bone, at which the fracture occurred, to lie in good coaptation. As a result of the healing process, an ossific fusiform swelling was observable in the clavicular region, but this would undergo absorption, and disappear. Case discharged. Fracture from muscular violence alone *may* occur in any bone, but are commonest in the patella, and fracture from such a cause in the clavicle is rare enough to be worthy of remark and record.

Nora Brennen, æt. 21, born in United States. This patient, who was formerly an inmate of the "Blind Asylum," had been sent to St. F. Hospital to be treated for ulceration of the limbs, between the knees and ankles. The right leg had been sore sixteen months. In the first place the limb had been kicked by a horse; swelling commenced, inflammation advanced, and supuration occurred two weeks after the kick; the limb had been sore ever since; the other limb becoming affected after a time put a bad feature upon the condition of the young woman. On the front of the ulceration of the right limb, were noticeable ridges of bluish colored edges; four or five separate ulcers existed on the right limb, which was the worse of the two, of different sizes, the largest above the size of a dime. Tr. of muriate of iron had been administered for some time; on the 21st of October, 1875, the patient had an attack of pleurisy. To the ulcer had been applied red precipitate ointment

and the chloral hydrate solution, the latter consisting of chloral hydrate, grs. v—xx in aqua ʒi . The improvement had been backwards, or retrograde. The type of ulcer in this case was indolent, and had a tendency to advance to phagedenic variety. The application of the adhesive plaster strapping was made, and the same directed to be renewed every other day. The continuance of the administration of iron preparations, in conjunction with the nourishing and common supporting treatment was ordered.

Stephen Jones, æt. 35, born in the United States. This patient was before the medical class on the 13th ult. A history of the case is given in report of clinics of that day. On that occasion the Professor was compelled to dismiss the case without having been able to pass a sound through the stricture into the bladder. Before opening the proceedings of the case this day, a few statements relative to the case were made. On the 14th ult. the introduction of the solid steel sound, No. 4, was attempted, but success was not attained; on the 15th, however, when an effort was made to introduce No. 4 into the bladder, the Professor met with success; on that day the manipulation had been protracted, and at the moment of the entrance of the end of the sound through the stricture into the bladder, the sensation imparted to the hand was as if a firm cicatricial band had suddenly given way before the sound. After this success in introducing the sound the patient did not experience so much trouble in evacuating the bladder. At this date an attempt was made to again introduce No. 4, and after a surprisingly great length of time, considering that the sound had been before passed, elapsed before the instrument made any headway through the stricture, but it eventually slipped into the bladder. From this time the method of frequent dilatation of urethra and stricture, the instruments to be used increasing in size, was to be practiced.

Reviews and Notices.

The Twenty-First Annual Report of the Board of Trustees and Officers of the Western Ohio Hospital for the Insane, is on our table. During the year 1875 there were admitted 300 patients, of that number 68 are recorded as hereditary cases; undoubtedly the actual number was greater. On this subject Dr. John H. Clark, the Superintendent very pertinently says:

“Apropos to the hereditary condition, it will be well to mention a few cases. We have in the institution at this time a mother and two children—son and daughter—and a male first cousin of the mother’s. The mother’s age is fifty-two, and, when a young woman, was a patient in the asylum at Columbus for eleven months, when she was discharged as recovered. Eighteen months ago she

was admitted here in a maniacal condition of three months' standing, fright supposed to have been the exciting cause. The daughter was received four years ago, her age then being sixteen, with mania of four months' duration, intermittent, fever the assigned cause. The son was admitted at the age of eighteen, with chronic mania of eighteen months' time, self-pollution the supposed cause, and has been an inmate for five years. The cousin was admitted eleven months ago, with acute mania, it being his second attack and second admission. And I am informed by a sad-hearted member of this unfortunate family that this mother's mother died insane; that her brother was at one time an inmate of the asylum at Columbus; and that at the date of getting this information (July last) she had another cousin crazy at home—in all, seven members of the family. The mother, son and daughter, here, are chronic cases, with almost no hopes of recovery, and but little better prospects for the cousin. They are all of good conformation and *physique*.

"It is a sad fact that while persons of such strong, nervous, morbid condition continue to marry, they will transmit their own predisposition, taint and misery, to leaven, as it were, here and there on down the line of descent, even 'unto the third and fourth generation.' In other words, if uninterrupted, this transmission of perverted condition and taint, being absorbed and inoculated into the healthy portion of community, insanity and other ills of the nervous system will continue to increase in an accelerated ratio for all time to come.

"The vexed question, 'What is to be done to remedy this state of things?' or, 'What can be done to arrest the increase and to abate the evil?' although well worthy of anxious inquiry, I will not attempt to solve, but will venture a few suggestions. With a view of checking the prevalence of insanity, more is to be expected from prophylaxis than from therapeutics, as it is true of mental, as of many other diseases, that it is often easier prevented than cured.

"We study with great care the character and pedigrees of our horses and cattle, and even our dogs, before mating them; but rarely do we give the subject of fitness any attention when we come to our own marriage. By proper care in selection, much might be done, not only for physical development, but also for the intellectual and moral qualities. Both sexes should refrain from marrying if in any marked degree abnormal in body or mind. Every one should feel it a bounden duty to discourage unfit unions, whether such unions are legal or not; and he who thus successfully uses his influence is a benefactor to his race. The hope, however, of doing much good is but ideal, and will never be more than partially realized until the laws of inheritance and consanguinity are more thoroughly understood and observed. And here a case in point: During the past summer a couple procured license, and married, who were but recently discharged patients from this hospital, it being the second attack and second admission for the

male, and the female an epileptic. The unfavorable condition of the parties in this marriage was probably unknown to the one issuing the marriage license, but it is no one's business to look after such things, and there is no legal restraint against such objectionable unions. With proper statute law, with the public duly informed and educated, and aroused to the necessity of exercising judgment and prudence in the 'selection of the fittest;' also by the well appointed aids of discretion, temperance, virtue, and other hygienic measures, avoiding, as far as possible, all exciting causes, much may be done, in my opinion, towards diminishing the present per cent of the saddest of all sad diseases.

"I would not cast the least odium or stain upon the escutcheon of any family thus unfortunately afflicted, but would gladly do something towards mitigating the evil or averting the calamity, and relieving the mentally ill-favored."

Cyclopædia of the Practice of Medicine. Edited by Dr. H. VON ZIEMSEN, Professor of Clinical Medicine in Munich, Bavaria, Vol. V. Diseases of the Respiratory Organs. By Prof. Juergensen, of Tübingen; Prof. Hertz, of Amsterdam; Prof. Ruehle, of Bonn, and Prof. Rindfleisch, of Wurtzburg. New York: William Wood & Co., publishers.

The first portion of this volume is by Juergensen on Croupous Pneumonia. A disease which he ranks next to phthisis as one of the most dangerous to human life, as it occurs in all degrees of latitude, and does not seem to be more frequent in one climate than another. Neither an absolutely high nor an absolutely low temperature seeming to exert much influence in the production of the disease. Rapid changes in the daily temperature favors the production of the disease. "Those communities which lead mostly an outdoor life suffer less from pneumonia than those which carry on their occupation in confined apartments. And woman are attacked by pneumonia somewhat less frequently than men." Age affords no protection; the disease rarely occurs in pregnant women, but when it does, miscarriage frequently results.

On the pathology of Croupous Pneumonia the author defines it as "anatomically considered, an acute inflammation of the alveoli and bronchioles, in which a fibrinous exudation is poured out upon the free surface of the mucous membrane and there coagulates. The three stages of the disease are carefully described. Relating Cohnheim's well known investigations, which explain the gradual change from the red to the yellow hepatization. The symptomatology and course of the disease are graphically related. The complications that frequently supervene are considered.

The author regards Croupous Pneumonia as a constitutional disease, which runs a typical course. No affection which arises from a local lesion presents a career so definitely limited in point of

time as is the case with this disease. In giving the treatment of a moderately severe pneumonia, he prescribes quinine in thirty grain doses, that amount to be given at once in the evening between six and eight o'clock. And when the fever is intense seventy-seven grains may be given to a strong adult, and fifteen grains to a child under one year, always in one dose. In order to get the full effect of each dose of quinine, the latter should not be given daily, but every second evening, allowing forty-eight hours to elapse between the two doses. This seems to us to be pretty heavy dosing. Yet the author says he has never seen any bad effects follow a use of the remedy when employed in this manner. Wine is given freely every day. He further says, the most dangerous enemy to the heart is the high temperature, and this may be safely and quickly lowered by bathing.

Prof. Juergensen is evidently a man of very positive ideas, and believes in the virtues of not only full but of very large doses of whatever medicine he prescribes.

The subject of Catarrhal Pneumonia is treated in the same positive but thorough manner, by the same author.

The Chapters on Anæmia and Œdema of the lungs, and hemorrhages of the lungs by Prof. Herz are very complete. The chapter on pulmonary consumption is by Prof. Ruehle. We regard this volume as one of the very best, not only of the *Cyclopædia*, but one of the best works on diseases of the Respiratory Organs, that has been placed in the hands of the medical profession.

A System of Midwifery, Including the Diseases of Pregnancy and the Puerperal State. BY WILLIAM LEISHMAN, M. D., Regius Professor of Midwifery in the University of Glasgow, etc. Second American from the Second and Revised English Edition, with additions by John S. Parry, M. D., Obstetrician to the Philadelphia Hospital, etc. Philadelphia: Henry C. Lea. For sale by Robert Clark & Co.

It is scarcely two years, since the first edition of this work was placed in the hands of the profession. No better evidence of its worth is needed than this early demand for a new edition. The principal changes in this edition are in the physiological section in which the author records the recent investigations in this field. The chapters on puerperal fever have been entirely rewritten. The author taking ground that there is no such specific disease as "puerperal fever" and that the term should be discarded. Stating among other reasons for his belief in the non-existence of a specific disease, that "the symptoms not only do not harmonize but present most startling contrasts." And "a course of treatment that is successful in one epidemic, is not successful in others, that writers on the subject have described a number of very different affections." The editor of the American Edition very properly

states, that this view is strongly opposed by many high authorities, among whom Prof. Fordyce Barker, of New York, occupies a prominent position, and tersely stated the subject before the London Obstetrical Society as follows: "The gist of the matter, stripped of its superfluous and obscuring elements, lies in the inquiry whether there be a disease which attacks puerperal women, and only puerperal women," affirming his belief in the existence of such an affection.

The chapters on puerperal fever are very complete, recording the course of a number of epidemics of the disease that have occurred in various places, giving the expressed views of prominent obstetricians on the subject.

The work as a whole is very complete, and well deserves the position it at once assumed as a text book for both students and practitioners.

A Report on a plan for Transporting Wounded Soldiers by Railway in time of War. BY GEORGE A. OTIS, Assistant Surgeon United States Army.

This pamphlet, of over fifty pages, is nominally a report on a plan of transportation, proposed by a Russian, Mr. A. Zavodoosky, who is in one place spoken of as an engineer and in another is called "doctor." But in reality, out of some forty-five pages not more than half a page is devoted to a reference to the method of Zavodoosky, the bulk of the pamphlet being taking up with a description of the various measures tried in this, and many of the European countries, for the removal of the wounded on railroads. Zavodoosky's system, as described by himself, is given in the form of an appendix. The subject is of interest only to a very limited number; but in time of War this report would, doubtless, afford much valuable information; for, "to meet emergencies," in the words of its author, "it is well to have familiarity with a variety of expedients, and to be thus enable to utilize such material as may be available."

Medical Diagnosis with special reference to Practical Medicine, a guide to the Knowledge and Discrimination of Diseases. By J. M. DACOSTA, M. D., Prof. of Practice of Medicine and of Clinical Medicine, at the Jefferson Medical College, Philadelphia, etc. Illustrated, Fourth Edition, Revised. Philadelphia: J. B. Lippincott & Co. For sale by Robert Clark & Co.

This work fills a niche in medical literature scarcely occupied by any other single volume, its popularity with the profession, may be estimated by the number of editions called for within a very few years. A number of necessary additions and changes have been

made in this edition. A description of new instruments of precision used as aids in diagnosis with method of using them is given. The chapters on Nervous Diseases and Fever have been rewritten, and give the results of recent investigations in these subjects. The work should be in the hands of every student and in the library of every practitioner of medicine. It is handsomely printed, and the illustrations are very fine.

We are in receipt of a Biographical sketch of John D. Jackson, M. D., of Danville, Ky. A reprint from the Richmond and Louisville Medical Journal, January, 1876. By J. M. Toner, M. D., of Washington, D. C. and L. S. McMurtry, of Danville, Ky.

A worthy tribute of respect to one of Nature's Noblemen.

The Body and its Ailments. By GEORGE H. NAPHY, A. M., M. D., Member of the Philadelphia County Medical Society, etc. Illustrated by over one hundred engravings and colored plates. Philadelphia: H. C. Watts & Co.

This work is intended for popular use rather than for the library of an educated physician, and as its teachings are all good we hope it will have a large circulation. As the author states in his introduction. "Science has no Secrets," we are not of those who fear that the laity will ever know too much of the true science of medicine, but believe that if the people were generally better informed through the instrumentality of just such books of this of Dr. Naphy's, there would be very much less patronage bestowed upon quacks and nostrums. The authors statements that "Knowledge is safety," will generally hold good.

Inhalation in the Treatment of Diseases. Its Therapeutics and Practice. A Treatise on the inhalation of Gases, Vapors, Fumes, Compressed and Rarefied Air, Nebulized Fluids and Powders. By J. SOLIS COHEN, M. D., Lecturer on Laryngoscopy and diseases of the throat and chest, in the Jefferson Medical College, etc. Second Edition. Revised and enlarged with new illustrations. Philadelphia: Lindsay & Blackiston. For sale by Robert Clark & Co. Price \$2.75.

For the cure of diseases of the throat and air passages, the application of remedies by means of inhalation has from time to time attracted the attention of the medical profession. This monograph, by Dr. Cohen, is undoubtedly the most complete that is published in the English language. The article in this edition on Compressed and Rarefied Air has been much enlarged, rendering it commensurate with the amount of attention recently bestowed on pneumatic therapeutics, in the treatment of certain affections of

the lungs and heart. The various instruments designed for the administration of remedies by inhalation are described with the methods of use. The work is finely illustrated and published in good style.

A Manuel of Baudaging. Adapted for Self-Instruction. By C. HENRI LEONARD, M. A., M. D., with over One Hundred Illustrations. For the use of both Practitioners and Students.

This is a most valuable monograph. The application of the ordinary bandage to every part of the body is finely illustrated, and its adaption described in the text.

In no way is a general practitioner more liable to bring his skill into disrepute among his patrons than by an awkward and rough application of a simple bandage. And, on the other, hand if he displays skill and familiarity in its application, he may not only escape unpleasant comments, but possibly, in case of a bad result, a suit for malpractice.

Fox's Atlas of Skin Diseases. By TILBURY FOX, M. D., F. R. C. P., etc. Parts 1, 2 and 3. Philadelphia: Lindsay and Blackiston. For sale by Robert Clark & Co. Price \$2 00 for each part.

The treatment of skin affections as a speciality by a constantly increasing number of physicians, with the consequent advance in knowledge of the cause, pathology and treatment of these affections, makes a work of this character valuable, and when the work is issued by so eminent a specialist as the Author, the work is doubly welcome. We need scarcely say that the plates are superb. The first eight plates forming parts one and two of the atlas represent the common forms of the erythematos diseases. Number three embraces representations of seven varieties of Lichen. It is proposed to complete the work in 17 or 18 monthly parts at \$2 00 each.

Extra Uterine Pregnancy: Its Causes, Species, Pathological Anatomy, Clinical History, Diagnosis, Prognosis and Treatment. By JOHN S. PARRY, M. D., Obstetrician to the Philadelphia Hospital, etc. Philadelphia: Henry C. Lea. For sale by Robert Clark & Co.

This work is a most complete resume of the whole subject of extra-uterine pregnancy, giving a record of nearly all the cases that have been reported in the various Medical Journals, altogether they number five hundred cases, recording the different plans of treatment with result. The periods of treatment are considered under three heads. 1. During the first four months; 2. During the remainder of the usual term of gestation; and 3. After that period, or after the death of the fœtus.

Considering all the consequences, the author advises under the first head, that the operation of gastrotomy offers the greatest prospect of relief and safety to the mother. In the second stage, he advises, that the indications be met as they arise, maintaining the patients strength and rendering her as comfortable as possible, performing no operation unless the cyst has ruptured, or the mother's condition become so desperate that she must inevitably perish. After the termination of the usual period of gestation, the measures are of course surgical. The author is most generous in quotations from the writings and opinions of men, who have given the subject special attention.

The Commencement Exercises of the Cincinnati College of Medicine and Surgery were held in Pike's Music Hall on the evening of February 17th, in the presence of a very large audience.

The valedictory address by Prof. Stuntz was exceedingly interesting and decidedly out of the usual course of such efforts. His subject, "Atmospheric Air" in its normal and abnormal conditions, was, admirably demonstrated by a series of experiments before the audience. Using for the purpose, air collected from various localities in rubber bags and subjecting it to tests for different substances. The address, although long, was very attentively listened to by the audience. The graduating class numbered 27.

The United States Medical Directory. It is proposed to prepare a second revised edition of this work. Physicians who have commenced practice, or changed location during the past three years (other than those whose addresses are on our subscription lists), are requested to forward notice of such changes to this office.

A Treatise on the Diseases of Infancy and Childhood. By J. LEWIS SMITH M. D., Physician of the New York Infant's Hospital, etc. Third Edition. Enlarged and thoroughly revised, with illustrations. Philadelphia, Henry C. Lea. For sale by Robert Clark & Co.

This now well-known work, two editions being exhausted within a few years, is again presented to the profession, enlarged and improved in every way; several new chapters being added and others being entirely rewritten. Rotheln and Cerebro-Spinal fever are considered for the first time. Epidemics of both these diseases having recently occurred in New York and other places, gives the subject special interest. The chapter on diphtheria has been rewritten with great care, and is one of the ablest contributions to the literature of this disease that has ever been published. On the subject of treatment, he says: "As soon as the case comes under observation, the following mixture is applied every second or third

hour over the fauces by one or two applications of a large camel hair pencil:

R Acid Carbolic,	gtt vi—x.
Liq. Ferri Subsulph,	℥ iij.
Glycerine,	℥ j. Misce.

If there is discharge from the nostrils, indicating diphtheritic inflammation of schneiderian membrane, a little of the same mixture diluted with an equal quantity of warm water, is injected into each nostril every three to six hours. One-third to one-half a teaspoonful of the diluted mixture is a sufficient quantity to employ for each nostril. This application, properly made, prevents decomposition, removes the offensive odor, and, which is of the greatest importance, prevents blood-poisoning.

Quinine in doses of one or two grains, according to the age and severity of the case, is administered about every fourth hour, and each hour in the interval half a teaspoonful to one teaspoonful of the following:

R Potass. Chlorat.,	℥ i ij.
Tinc. Ferri. Chlor.,	℥ j.
Syr. Simp.,	℥ iv. Misce.

No drinks are allowed for a few minutes after its administration, as well as after the use of the brush, so as not to wash it away too quickly from the fauces."

As preventative measures, the patient and family should be placed under good hygienic influences, with isolation from other children, and give quinine as a prophylactic. The author has had an unusually large experience in the this formidable malady.

Uronology and its Practical Applications. By GEORGE M. KOBER
M. D. Reprint from the Richmond and Louisville Journal,
pp. 107.

The author deserves the thanks of the profession for this valuable little monograph, for it is a complete guide to the examination of the urine. Much time and care has been bestowed on the preparation of the work, and it contains all the latest English, French and German information regarding the analysis of urine. It is to be regretted that Dr. Kober has not had his work bound in cloth and placed on sale, for it will more than compare favorably with some of the more pretentious foreign text-books on the subject. The only fault we have to find with the paper is the modesty of its author. At the present day when medical mediocrity pushes forwards and advertises itself so arrogantly, it is very refreshing to come across a paper full of real merit, as is that before us.

T. C. M.

We call special attention to Advertisements in this number, of Physicians' Property for sale.

THE CINCINNATI LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.
T. M. STEVENS, M. D., Asst. Editor.

VOL. XIX, APRIL, 1876—No .4.

Original Communications.

Art. 1—Some Remarks on Puerperal Fever, and its Relations.

By EDWARD B. STEVENS, M. D., Prof. Mat. Med., &c., in the Syracuse University, Syracuse, New York.

[At a recent meeting of the Onondaga Co., N. Y., Medical Society, Prof. Porter read the report of a case of puerperal fever (so called), with a successful result. In that paper he attempted to point out the close relationship, if not absolute identity, between metro-peritoneal fever and erysipelas. In the discussion of that paper I made some extended remarks, the substance of which I have now written out, and submit to the consideration of the readers of the LANCET AND OBSERVER. I may also add, as another link in the study of this subject, that since that discussion I was called in consultation to see a case of puerperal metro-peritonitis, in which I found that ten days before confinement a child in the family had an attack of erysipelas. About the date of confinement, the patient herself had erysipelas for several days upon both arms.]

I. What is fever? The causes. The why.

II. How far is what we call *puerperal fever* associated with what we regard as general fever, or how far is this form of fever dependent on the same general causes?

III. What are the relations of erysipelas to fever generally, or to special forms of fever, say especially *puerperal fever*?

1. In *general fever* the most prominent symptom which we observe is increase of temperature. The heart's action is disturbed, usually *accelerated*. There is *pain*, either local or

general pain. Then if the cause of the fever be a local one, there is usually swelling and redness of the surface, or pain and swelling of the structures involved in the origin of the fever. These are among the usual circumstances that in the first place suggest to us the presence or *existence of fever*. But at the same time this is not fever. These appearances simply suggest that fever *exists*. Then what is fever?

We observe that a man has a chill, perhaps, or a period of languor, and then a chill; this is followed by a series of events; the chill has been more or less protracted, more or less defined, then a paroxysm of fever with pain, &c. These paroxysms of languor, chill, pain, fever, &c., sometimes running their regular order with intervals of remission, sometimes scarcely any perceptible interval, and still the question recurs with such a series of symptoms, more or less complete, to which we have been in the habit of giving the name *fever*—What do these signs indicate; or, in other words, what has happened?

To express the problem very briefly, *this is what has happened*: SOMETHING has disturbed the relations of the nervous centres to the rest of the system; there is, in other words, a loss of the normal balance between the nervous system and the other influences, making up the chain of healthy physiological processes. *This is fever*.

No matter *what* the causes, (and we will at once briefly allude to some of the more important of them.) The lesion, the influence, the cause, may be varied, but whatever happens for the individual case to excite fever, *that is fever* whenever this loss of normal balance has been provoked.

Nearly all modern writers give the *phenomena* of fever very fully and clearly, scarcely *any of them* express the logical pathology in its strictness. *About one hundred years ago* Dr. Cullen, of Edinburg, wrote very carefully about fever. His views are good to-day, and if you except some special pet notions of "spasm," and the like, you have no modern authority who is so clear and satisfactory. He very clearly points out the events, now so well recognized; 1st. a stage of debility or languor; 2nd. a stage of chill; 3rd. fever developed. These are the order of circumstances which present themselves to the study of the clinician.

Now it does not matter what is *the cause* of what we call fever, or its *direction* of influence, when its impression takes place the result is always the same, so far as the essentials of fever are concerned. Fever is simply a break in the balance wheel of nervous influence.

Thus, a susceptible person is exposed to the contagion of typhus, of small-pox, of measles, of scarlatina, &c.; the poison

in some way reaches the blood, becomes a ferment or catalytic, changes the state of blood, perhaps; at any rate, a new or abnormal influence reaches the brain. What then? The brain function is disturbed, and we have debility because the brain acts imperfectly. Or, again, a man is exposed to a sudden draft of cold air, a shock to the nervous system direct is produced, and we have a like train or series of disturbances. Or still, again, a man pierces his leg with a thorn, it irritates, inflames, as we say, festers, *but* in doing so, the nervous system of that man is disturbed, the balance wheel is disconnected, and then we have *languor*, 1st. because any of these disturbing agencies are primarily sedatives, and the subsequent events occur simply as physiological sequences.

2. If these views be correct, then we can hasten very rapidly to the consideration of the other points in our inquiry. So far as *puerperal peritonitis* is concerned, the patient, by virtue of her lying-in condition, becomes susceptible to febrile influences. And, 1st. the injury done to the uterine structures alone are sufficient to provoke fever. And yet, as this is a physiological arrangement, usually the patient passes through the needed events of repair, &c., to a complete state of health. I say this is the usual plan, and usual procedure, but, nevertheless, the completion of labor leaves the uterine structures in a condition *ready to invite* the influence of any surrounding morbid agent. So, then, there may be at once a sufficient traumatic influence to provoke or establish a peritoneal inflammation, with all the usual events of a *fever*; or some outside influence or morbid agent may take advantage of the susceptible condition of these uterine structures, and make them the *fons et origo* of febrile conditions as heretofore enunciated.

But, at any rate, if the uterus, or its appendages, take on inflammation, and by a process of radiation these processes extend to the peritonæum, or to all of the surrounding tissues and structures, then we will have *fever*, of course, but only because this local trouble has disturbed the relations of the brain and other nervous centres, very much as the thorn in the leg of a man has excited and troubled or deranged the normal influence of the nervous system.

Now, in my judgment, this is all there is of the relation of *puerperal peritonitis* to general fever. The uterus may take on inflammatory conditions as the result of labor, by the usual traumatic influences, and thus produce *fever*. Or, in its special susceptibility, it may be provoked by contagion or other outside influences to take on specific changes, and thus suggest to the brain or nervous system those impressions

which develop the train of events which we call fever. For example, a person meets with injury, and in the process of dressing is exposed to infectious material from another patient; this patient with no special or peculiar tendencies to specific disease, takes on some form of fever. In the male it may be simply malignant *erysipelas*, in the lying-in woman it will probably be puerperal peritonitis. Now, in all the varied states of the system to which we give the name of fever, the exciting cause and the structures first involved, both together, give character to the form of the fever; thus we have variola, with its peculiar associations, this only means that the poison of small-pox has by its catalytic process so changed the condition of the blood that an unusual impression is offered to the brain. We might, in the same way, very well run through the influences which excite rheumatic fever, or pleuritic, or any other form of febrile condition.

Puerperal fever, then, only means that some influence has attacked these susceptible structures and established some positive local influence, like the thorn in the man's leg, which impinges on the brain, or some part of the nervous system, in such a way as to disturb, derange, overthrow, the normal relations which usually exist.

Again, puerperal fever, or child-bed fever, may arise from septic influences, generated in the uterine structures of the individual patient. I think there is no doubt of this. We may have a patient perfectly free from epidemic influences, perfectly free from any contact of contagion or direct infection, and yet she may become a subject of true fever, peritoneal or uterine fever. Such cases are not hard to account for; this is a case of pure *sporadic puerperal fever*. And yet while this is true, the weight of opinion, at the present time, is that the disease is communicable, and that a single sporadic case thus generated may become the nucleus of indefinite cases, provided women in the lying-in state are ever so indirectly placed in contact with the influences of this case.

So, then, we come to the other inquiry—3. How far is *erysipelas* associated with general fever, or any special or peculiar form of fever?

It is a matter of debate whether puerperal fever is contagious or infectious. Very able men have written on both sides. Meigs' letters take very strong ground against the idea of communication, but the weight of testimony seems, at the present, to show very decidedly that not only may puerperal fever be communicated by the physician in attendance, but that infectious matter *from a variety of diseases* may

provoke puerperal fever. Thus we are not at a loss to understand why erysipelas may transmit its poison to the lying-in woman and provoke fever. And, also, why we might have these pathological conditions *inter-communicable*. Statistics show that the infant of the puerperal woman dies of erysipelas. Statistics further show that the great epidemics of puerperal fever had erysipelatous fevers prevailing side by side. Erysipelas is *simply fever*, only peculiar because established by a specific poison, just as we have the peculiar forms of various exanthematous fevers. And if the poison or infection, in any way, reaches the susceptible structures of the recent lying-in woman, she simply takes on the febrile condition modified by her peculiar susceptibility.

REFERENCES.

On the Nature of Fever—

See Cullen, page 32.

See Maxon's Practice of Med., page 67.

See Watson, Vol. 2, on Continued Fevers.

On the Nature and Relations of Puerperal Fever—

See Holmes' Essay, as a believer in Contagion, &c.

See two brief papers in Braithwaite, July, 1875.

See Dr. Minor in Cincinnati Lancet AND Observer, Oct. 1874.

See Dr. Meigs, as opposed to Contagion in Diseases of Women.

On the Relations of Erysipelas to General or Special Fever—

See Holmes' Essay.

See Dr. Minor, especially page 589 Lancet AND Observer, Oct., 1874.

Art. 2.—Tela Aanæ or Spider Web, in the Treatment of Chronic Intermittents.

By L. M. JONES, M. D., Winchester, Indiana.

Having had some experience with this remedy lately in these troublesome affections, I give it for the consideration of the readers of the LANCET AND OBSERVER.

I will give the history of a case of Chronic Intermittent that came under my care, and the treatment in the same, in order to compare Tela Aanæ with other remedies given.

In December, 1874, I was called to see Nellie P——, æt 10, suffering with Tertian Intermittent fever, which trouble she had been afflicted with for over two years. She was of a bilious temperament; very much emaciated; icterus hue of skin and conjunctiva; abdomen distended, which on palpation

disclosed an enlarged liver and spleen, the latter extended to the crest of the ilium, and could be easily traced through the abdominal parietes; bowels constipated and relaxed alternately, urine very highly colored, with frequent desire to urinate, especially was this the case during the febrile-stage; cough troublesome, but on examination could not detect disease of the lungs; heart during the paroxysm and subsequent reactionary fever exhibited great irregularity of action; edema about eyes and face.

Paroxysms occurring regularly every third day; cold stage lasting from one to two hours; fever from six to eight hours; pulse 120 per minute; skin hot and dry; patient delirious, with nervous twitching of limbs; respiration hurried; fluttering of heart; great thirst and at times sick at stomach; during the high fever incontinence of urine, which passed in great quantity and of very offensive odor. During the intermission the patient would be up and about the house. It was evident from the length of time that the patient had been afflicted, and the deranged condition of the system, the grave character of the symptoms, that I had one of those perplexing chronic intermittents to treat, which annoy and discourage the patient from the long delayed relief. As several reputable physicians had treated her without success, and ague specifics had been tried in vain, I was fully aware that I had a harassing case on hand, and withal one not devoid of interest.

Without saying more, I will give the course of treatment that I pursued. I give the prescriptions numbered in the order that they were used in the case, with the exception that they were sometimes refilled with other treatment to suit indications.

1st. R \bar{y} —Liq. Potassæ Arsenitas, f $\bar{5}$ iv.
Flu. Ext. Taraxaci, f $\bar{5}$ iss.
Syr. Simplex, $\bar{5}$ i.

M. Sig.—Teaspoonful after each meal and at bed time.

2d. R \bar{y} —Chinoidine, $\bar{5}$ ii.
Nitric Acid, dilute f $\bar{5}$ i.
Aquæ, $\bar{5}$ i.

M. Sig.—Take five too eight drops in water every four hours.

3rd. R \bar{y} —Quiniæ Sul., grs. xxx.
Arom. Sul. Acid, $\bar{3}$ ss.
Tinc. Gelseminum, $\bar{5}$ i.
Liq. Potassæ Arsenitas, $\bar{5}$ iii.
Tinc. Muth, Piperitis, $\bar{5}$ i.
Syr. Simplex, $\bar{5}$ iii.

M. Sig.—Teaspoonful every four hours.

4th. R \bar{y} —The Ext. Eucalyptus Globulus, $\bar{5}i$.
 “ “ Glycyrrhiza, $\bar{5}i$.

M. Sig.—Teaspoonful every two hours. Of this she took two bottles in succession.

5th. R \bar{y} —Tinc. Iodine, $\bar{5}iii$.
 Flu. Ext. Taraxaci, $\bar{5}ii$.
 Syr. Lemon, $\bar{5}v$.
 Syr. Simplex, $\bar{5}i$.

M. Sig.—Teaspoonful after each meal and at bed time. She took two bottles of this in the course of treatment.

Further than this I will not give the course of treatment, as it was a repetition of the course as above given, with the exception that I did not follow out the routine in my subsequent treatment; however, I gave quinine freely for several days in succession, compound Chinoidine pills, composed of Chinoidine, Sulphate of Iron and Piperine; I gave Cathartics, including Calomel in full and in broken doses. This treatment was kept up for several months, alternating from one to another, when I thought necessary to make a change. And yet, I could not break up the paroxysms longer than one week, when they would return, and this intermission would occur at long intervals.

I concluded that I would stop this specific treatment, and give tonics, and prescribed the following:

R \bar{y} —Quiniæ Sul., grs. xxx.
 Muri. Tinc. Ferri, $\bar{5}iii$.
 Phos. Acid Dil., $\bar{5}ss$.
 Syr. Lemon, $\bar{5}iii$.

M. Sig.—Teaspoonful every four hours.

She was kept on this prescription for two or three weeks, when her mother came to me and stated that Nellie's chills were getting worse, and that if I could do anything for the child, to do it, I dismissed her with something as a placebo, and set myself to reviewing the case and my treatment. But what to do next was the question? When I happened to remember, that Spider Web had been used in intermittents, and on referring to the U. S. Dispensatory, I found that Dr. Robert Jackson claimed that it was superior to bark and arsenic. This it had to be in my case at least, as quinine and arsenic had failed to do any good.

Accordingly, I went to the drug store and had some prepared in the following manner, went with the druggist to the cellar

(as it is the species of spider that inhabit cellars or dark places, that possess medicinal properties), and with a stick I gathered cob webs until I had a wad or bunch the size of a large hulled walnut.

This we put in a bottle with four ounces of good whisky, which was allowed to macerate for forty-eight hours, when it was filtered and the liquid poured into a bottle. I carried the medicine to my patient and left the following directions: Begin four hours before the expected chill, and give a teaspoonful every hour, until she had taken four doses, then a teaspoonful before each meal and at bed time, until all was taken. The medicine was given as directed. The anticipated chill came, but was very light compared with the others. This, however, was the last chill that she had, which has been over four months since.

Her general appearance has improved, color of skin is clear, the spleen has returned to nearly its natural size, bowels regular, appetite good, in fact the child has so far improved that her friends call her well.

The patient and relatives did not know what she was taking, and are still ignorant on the subject, so that the mind of the patient had nothing to do in the performance of the cure.

I gave her the second bottle of the medicine, to be certain that the cure was effectual.

I have since used the remedy in other cases, with the same success, and would ask that the profession give the remedy a trial in the various intermittents. I will offer no comments on the case that I have cited, or give any theory as to the action of the remedy, but shall leave the reader to his own views. I give a history of this case, because I considered it an interesting one in several particulars; also was particular in giving the treatment, that a comparison might be made in the remedies used and the results obtained; and that the reader might see for himself that the treatment adopted by the writer was a varied one. I will add, in conclusion, that either of the prescriptions given will break up an ordinary case of intermittent fever, chronic or not.

Art. 3.—Sassafras as an Antidote for Vegetable Poison.

By ARTHUR W. T. LYLE, M. D. Castleton, Ind.

The valuable properties of the sassafras in vegetable poisoning is, I may say, unknown to the majority of the medical profession. Having administered it as an antidote, I can with

certainly say that it is positive in its effects, and worthy of especial notice.

The antagonistic properties of the sassafras to the vegetable poison—henbane and tobacco—were first made known to the profession of the Southern States by Dr. Thompson, of Nashville, Tennessee. I have no theory to offer as to its mode of action.

Those members of the profession who are inclined to be skeptical, and who are opposed to the use of tobacco, can be readily convinced of its antidotal properties, by smoking tobacco into which a few drops of the oil of sassafras have been placed. No ill effects of the tobacco will be felt. Try it and be convinced.

The control sassafras has over the narcotic properties of henbane are remarkable. I will copy verbatim Dr. Thompson's statements :

"For some time I was uncertain whether the narcotic properties of the henbane was wholly counteracted or lessened by the sassafras ; but a mischevious little girl solved this question for me. Her mother being pregnant, and suffering much from costiveness and erratic pains, I made a syrup of butternut, to which I added sixty grains of hyoseyamus, and thirty drops of oil of sassafras to the half-pint, and directed a tablespoonful to be taken often enough to keep her comfortable. Her little daughter, seeing her take it frequently, supposed it was, of course, something good, and, in the absence of the rest of the family, managed to get hold of the bottle, and finding that it was sweet, drank all that remained, which was over a gill, and contained at least thirty grains of hyoseyamus. The child after a little got into a crib and fell asleep, and slept quietly and naturally for about three hours, when the cathartic effects of the butter-nut aroused her. No injurious effects followed."

The doctor mentions another instance wherein he gave the above mixture to a negro, during an epidemic of cholera, in a dose containing forty grains of hyoseyamus. In this case the hyoseyamus did not produce sleep.

I have administered the oil of sassafras in a case of stramonium poisoning, and with the happiest results. My notes of the case, or part of them, having been lost, I will endeavor to describe the case as near as possible, and give treatment :

Was called in haste, August 19, 1868, to see J. W——.; four years of age, who was said to be "working in fits." The symptoms when on first seeing him were about as follows: Pulse one hundred and forty; tongue and fauces dry, and the former swollen, having a dark purplish color; body and extremities swollen, and abdomen greatly disturbed, as by flatulence.

On inquiry, I learned from patient's sister that her brother had eaten of "them flowers which grow on the commons." I asked for a specimen of the "flower," and was shown the buds of stramonium, convincing proof of poisoning.

I administered emetics, and applied warm application with friction to body. Finding medicine given not producing the desired effect, as a last resort I gave the oil of sassafras as an antidote, and with, as I have stated, happy results. Its remedial effects surpassed my expectations. The sassafras was given in ten drops doses, at intervals of one-half hour, until six doses had been given, when consciousness returned. No more medicines were given, with the exception of a tablespoonful of castor oil, to cleanse the bowels.

I saw the child the day following his sickness playing with his brother and sister, looking a little pale, but free from all pains or disturbances following poisoning.

The sassafras will destroy all insect life, and is an effectual antidote for the bite of venomous copperhead snakes.

I trust the profession at large will give this remedy a trial, and am fully convinced they will applaud its merits as an antidote for the poison herein mentioned.

***Art. 4—Clinical History of a Case of Cordiac Thrombosis,
with Emboli of the Lungs.***

Reported by O. FRANKENBERG, Prof. of Pathological Anatomy, Starling Medical College, Columbus, O.

POST-MORTEM EXAMINATION.—M. F., aged 24 years; born in Ireland; common laborer. His previous health has been good. On Sunday, Dec. 12th, he first noticed the swollen condition of his face, and on Dec. 14th he applied at St. Francis Hospital for admission. When first seen in the morning, he presented a simple case of facial erysipelas, but nothing else was discovered.

The usual prescriptions were made, viz: Tinct. Ferri Chloridi internally, and Plumbi Acetatis, in solution, externally, a bath, and rest in bed. Under this treatment he greatly improved, until Dec. 17th, about 10 A. M., he had occasion to go to stool, and returned to his bed; ten minutes after he was suddenly seized, without an apparent cause, by a severe attack of dyspnoea; "smothering," as he called it; complained of some pain in left side, and became restless. Soon after he

began to perspire profusely, and his hands and feet became cold. Prof. Pooley, being in the ward at the time, was called to see him; he at once diagnosed the case to be one of cardiac thrombosis, and made a prescription, consisting of *Ammoniae bi-carbonas*, and *Spts. Frumenti*.

I was called to see him in the afternoon at 5, and he was then carefully examined. His condition may be described as follows: Pulse at either wrist is indistinct and can not be counted; common carotid beats 96 per minute; is weak and small in volume; temperature in axilla 103° F.; heart impulse can be easily felt; the rhythm of the heart sounds is lost, first and second sound can therefore not be distinguished, but no special lesion can be recognized. Auscultation revealed on left side (apex), bronchial respiration normal, vesicular murmur diminished. Right side (apex), bronchial respiration very feeble, and slightly wheezing; no vesicular murmur can be heard. Percussion of left lung revealed no perceptible change, but on right side dullness was detected extending from apex to base; dullness was not very decided, however. The treatment was ordered to be continued with an extra allowance of stimulants and beef tea.

Dec. 18th, 10 A. M.—Number of heart contraction, 144 per minute; arterial impulse can not be counted at either wrist; temperature 103 3-5° F.; respiration 40 per minute, and very shallow. Lungs in same condition, except slight increase of dullness over right lung.

Perspiration is cold and clammy, hands and feet are cold, and is extending towards the body. He is delirious and talks incoherently; is in a comatose condition, it requires some urging before he can be made to answer questions; does it slowly and with an effort on his part.

Death took place at 3 P. M. of the same day.

Post-mortem examination was made 42 hours after death. Rigor mortis still marked. Traces of erysipelas are seen on the face. External inspection reveals nothing of further importance.

Lungs and heart were taken out together, slight adhesions in right pleural cavity. Lower lobe of left lung is congested, all three lobes of right side are congested.

On sections being made, large quantities of very dark venous blood flowed from cut veins; dark blood can be squeezed out, but some portions of lung do not crepitate on pressure.

Emboli were found in left and right side, six in number, from two to three inches long, probably more were overlooked.

In right auricle a very small thrombus was found.

In right ventricle, a thrombus extending from apex to semi-lunar valves in pulmonary artery, lying in the infundibulum, measuring 4 inches in length, 1 inch in width at its attachment to columnæ carneæ, $\frac{1}{2}$ inch at termination in front of valves; the clot weighs 103 grains, has the usual yellowish appearance of coagulated fibrin, and is of rather firm consistence.

In left side of heart a few small clots were found.

Wall of left ventricle somewhat thickened, very near $\frac{3}{4}$ inch in thickness. No signs of an inflammatory action could be detected, which might have given rise to the thrombi. Dura mater was congested, also the brain, but no clots could be discovered in portion.

Cause of Thrombosis: The facial erysipelas was, it is supposed, the cause of thrombosis. The swelling of the tissue pressing upon the vessels, retarding the flow of the blood, gave rise to the formation of clots, which were carried with the current of venous blood to the right side of the heart, there lodged, and additional fibrin deposited, and from this clot small pieces may have been detached and carried into the lungs, or some may have reached the lungs direct from the veins of the face.

I do not think that the clots were due to inflammation of the veins, this inflammation, a consequence of erysipelas, for it is a well-known fact that veins do not readily inflame by simply coming in contact with inflamed parts.

Similar cases having such slight causes have been reported by F. Benzoldt, (*Deut. Arch.*, xii, 13); Ponfick (*Virch. Arch.*, lviii, 528). T. Browne in *Lancet*, and Shepherd reports a case in which the patient slipped through the rounds of the ladder, hurt his shin; in twenty hours had a fainting fit; three days later an attack of pleurisy, and died on the thirtieth day of thrombosis.

Art. 5—Brief History of a Case of General Paralysis and Post-Mortem Appearances.

By W. H. DEWITT, M. D., Physician Longview Asylum.

Frederick R.—; admitted April 15, 1874; nativity, Germany; 39 years of age, and single; occupation, barber. First attack. Duration, prior to admission, about one month. Medical certificate says he has delusions about his money matters.

The supposed exciting cause is masturbation. He has been addicted to the temperate use of alcoholic drinks and tobacco. He has not received any injury to the head, nor been subject to epilepsy. The disease is not hereditary. Restraint has been resorted to at all times.

Patient is a medium sized man, in good flesh, and fair physical condition. Conversing with him, he says he is a barber and makes a great amount of money, is equaled by no other barber in the world; can shave more customers in a given time than any rival barber. Desires to open a barber shop here. Claims to be very strong; says he was *always* very strong and muscular, but that his muscles grew to their present size in one night; awoke in the morning and found them in their present state. His intellectual pretensions are vast; claims to be the possessor of all knowledge. Protrudes the tongue in a straight line, but is very tremulous; some hesitancy in speech, and in walking there is an irregularity in gait which is incompatible with perfect health. No perceptible irregularity of the pupils. Is very irritable and quarrels some at times. Temperature above normal, evening greater than morning; pulse of very good volume.

April 30. Has been rather quiet and better behaved, but is still irritable and easily excited; talks much to himself. Mental and physical symptoms have changed but little.

May 15. Is not much changed, certainly not mentally; talks about his marvellous strength and other attainments. The most of the time he is well disposed and quiet, occasionally gets excited and troublesome.

June 5. Is emaciating somewhat, though he eats very well. Mumbles to himself and gesticulates frequently. Delusions are of the same character.

July 10. Still talks to himself much of the time, and at times is destructive and filthy. Muscular inco-ordination of speech and locomotion is becoming more and more apparent. Is at times very irritable and quarrelsome.

August 18. Very little perceptible change; seems to be growing quieter and less quarrelsome. Is in fair bodily health.

October 1. Bodily condition slightly improved. Greets an interviewer, and answers simple questions readily; conversational powers go no further than this. Walks about much of the time, but his gait is very unsteady. Lips and tongue are tremulous.

December 1. But little changed; is quite tranquil, very rarely excited, but at times destructive and filthy.

February 2. Rather bright in appearance, but dull in con-

versation. Gait unsteady; occasionally makes anomalous crazy motions. Physical conditions less favorable.

April 1. Mental and physical enfeeblement becoming more and more manifest from day to day. Gait uncertain; lips and tongue tremulous; mental enfeeblement decided.

From this date forward to time of death he became more and more helpless. During the last three months of his life he remained in bed, with the thighs flexed upon the body, and the head thrown forward in a very striking manner, a position often assumed by general paralytics during the close of the disease. His temperature continued above normal during the entire course of the disease. He never complained of pain in any locality; but, on the contrary, always affirmed that he felt perfectly well.

Autopsy, 20 hours after death. Rigidity well marked; body emaciated, and covered with sloughs of various sizes; scalp bloodless; skull of normal thickness. On removal of the Calvaria the Dura Mater was found to be much thinner than natural, and presented at several points a cribriform appearance. Beneath the Dura Mater, and between the parietal and visceral layers of the Arachnoid, a *false* membrane was observed, extending over both hemispheres. Upon further examination it was found to be continuous, enveloping every portion of the brain structure. It was but slightly adherent and easily detached without destroying its texture.

The visceral Arachnoid was opaque throughout most of its extent. The Pia Mater was but slightly congested, and easily removed from the convolutions.

The brain was small, and the convolutions flattened. Upon section of the hemispheres, the cortical substance was observed to be thinner than natural, of normal consistence, and of a dark gray color.

The Medullary substance was much firmer, and thickly studded with puncta. Scattered through the same were a number of small cavities or vacuoles.

Thalami, Corpora Striata, Crura Cerebri, Pons Varolii, Medulla Oblongata, and Cerebellum, were healthy in appearance.

Arteries at the base dilated somewhat, and filled with dark colored blood. The condition of the Dura Mater, as already described, was no doubt due to pressure exerted by the false membrane, producing absorption.

The weight of the membrane when removed and cleansed was nearly or quite 4 ounces. The point of great interest in this case is the extent of the false membrane. I am well satisfied that there is not a similar case on record.

*Art. 6.—Four Cases of Placenta-Prævia, with Remarks
on the Action of Ergot.*

By E. E. RIOPEL, A.M., M.D., Cleveland, Ohio.

Case I. Mrs. J. D., æt 28, primipara American; on account of her dissipated habits, is in delicate health; was called in consultation with Dr. Davis at 8 A. M., of April 6th, 1875. Found her in a profuse hemorrhage, small feeble pulse, and making great efforts at vomiting. A drachm of the fluid extract of ergot was given, with half the quantity repeated every half hour. Previous to this, the attending women had given her whisky-punch, which had entirely stopped the existing labor pains. The os was found dilated about one inch. In about one hour after the first administration of the ergot, the hemorrhage had entirely ceased. It was agreed between Dr. Davis and myself that one should remain by her till delivery was effected. I returned at 2 P. M.; after waiting a few minutes, the pains commenced; os dilated about two inches. I ruptured the membranes, so that, if possible, to deliver the child alive, and avoid any further hemorrhage, when the funis presented; I at once adopted the pastoral method of shoulder and knee position, when the cord returned, but the placenta also became detached, for after resuming her position in bed the placenta was found in the vagina. The child came away in a few minutes after. When the cord presented, there was pulsation in it, but the child was dead when born. No hemorrhage accompanied the delivery.

Case II. Mrs. M. K., æt. 30; primipara, quite healthy, born in Ireland; was called at 9 P. M. of June 3, 1875. My first notice on entering the room was a pool of blood under the bed. She was gasping for breath. Her countenance was of a deadly palor; extremities cold and clammy. Judging from appearances that her chances were doubtful, I gave her two drachms fluid extract ergot, together with a cupful of milk, which was swallowed with much difficulty. In fifteen minutes, I gave her again a drachm of ergot. In about half an hour, I was delighted to see her open her eyes and ask for a drink; she had great thirst; skin getting warm and dry. The labor pains that had existed now ceased, and she slept about twenty minutes. When she awoke, I made a vaginal examination, and found the os dilated only sufficient to admit the end of the finger. For eight days in succession, a slight hemorrhage appeared every evening about the same time, and checked by the ergot; slight

labor pains came and went at longer or shorter intervals every day and night. Interference was not thought necessary, nor even judicious, for by this gradual peeling off of the placenta, I anticipated a safe termination, at least to the mother; nor was I disappointed, for on the ninth day both mother and child, a healthy boy, came from the ordeal safe.

Case III. Mrs. Bridget B——., 37 years of age; very fleshy; mother of four children; had two miscarriages and one still born. Was called to see her December 12, at 7 o'clock P. M. She had some "pains in the back." The os dilated about one and a half inch, and from the smooth and hard condition during pain, I was not mistaken as to the presenting part, that it was the amniotic membrane. Having another case to attend to, and there being no appearance of immediate delivery, I left, requesting the husband to come after me as soon as her pains became bad. I was but a square away, and had not been there one-half an hour when the husband came in great hurry saying his wife was dying. I hurried back, and found her flooding fearfully and in great distress. On vaginal examination, I discovered the placenta in the vagina together with the cord and left arm. I immediately gave her ergot, then thrust my hand into the uterus, at the same time carrying up the protruding arm, and seized one foot, turned and delivered all but the head. Gave her more ergot, and by gentle friction over the fundus, made the uterus close down on the head, which was serving as a plug to the further escape of blood.

The great difference to touch between the placenta and other parts presenting cannot be mistaken; nor could the placenta have been attached to the edge, or over the mouth, without giving some evidence by hemorrhage. That it was near this part is evident, from the fact that the head presented when first examined; then by forcible contractions had forced the head to the more yielding portion of the uterus, thus presenting the shoulder, which was the case on second examination.

Case IV. Mrs. J. W——., 26 years of age; in second pregnancy. On January 14th, 1875, I was called at 3 o'clock A. M., to see this lady. I found her in a pool of blood and pulseless, in fact dying. Immediately I gave her ergot f 5 j, as in previous cases, and called Dr. Cutler in consultation. The ergot was repeated in $\frac{1}{2}$ 5 doses every fifteen minutes. When Dr. C. arrived, which was about half an hour after I had been there, the radial pulse had returned, and hemorrhage had almost ceased. She was then in her eighth month of pregnancy. Every week till her delivery she had slight hemorrhage, at full

time she gave birth, without any further trouble of hemorrhage. The placenta was unusually large, measuring $8\frac{1}{2}$ inches in diameter, and about $1\frac{1}{2}$ inches in thickness; was pale and strong. The labor was easy as to pains, though there was and had been for two days previous a very irritable condition of the uterus, and was disposed at first to blame the ergot for it; but since writing the first part of this article, I had a case of just such an irritable uterus, yet no ergot had been taken. The delivery of the child had a marked resemblance to the above case, as to hemorrhage, etc., though not to the same amount. This case was relieved by morphia and ipecac.

It must here be stated that the extract of ergot was not the only reliance, for in every case a cold cloth, or a piece of ice wrapped in linen, was introduced into the vagina, though only within the vulva; but certainly the ergot had much to do, if it was not the whole cause, of the arrest of hemorrhage. I would, after this little experience of the ergot, be willing to rely upon the ergot alone. What, then, is the physiological action of ergot? Dr. Cutler tells me that he has arrested hemorrhage of the uterus by a sub-cutaneous injection of morphia. The action of this drug is upon the nervous system, and not by increasing the coagulability of the blood. In the January number of American Journal, 1876, there is an extract from the Lancet, of an article by Dr. Jas. M. Williamson, in which he states his experience with ergot. He administered ergot in fifty cases of hæmoptysis occurring in different stages of phthisis. The drug checked rapidly forty of the fifty; 16 were women and 28 men. What then are we to infer from these facts? If ergot has a direct action upon the muscular fibres of the uterus it is through the nervous system, by tonic action upon the peripheral extremities. The same arrest of hemorrhage is produced in any other part of the body. It has been given in all forms of hemorrhage with success, and its action must be in its nauseating effects upon the stomach, and thus by a reflex action upon the peripheral nerves.

That it is not upon the deeper structures of the uterus is proved by the fact that when given near or at the time of labor, *when there was hemorrhage*, it produced no effect upon that organ other than to arrest the escape of blood. In the fourth case above cited I was particular in this respect to determine whether or not the ergot had any effect in producing any contractions, with a negative result. That the drug has a power over the uterus is evident, but with these facts before us, and which are corroborated by Dr. Cutler, what shall we say of the physiological action. 1st. The deeper muscular fibres

are not affected. 2d. The mucous membrane of the body of the uterus is acted upon by reflex action disturbing the nutrition of the body of the uterus which disturbance, results in irritation, and hence the spasmodic action of the uterus. 3d. Ergot acts as a nauseant and soporific. And, 1st, ergot being an anodyne it is quite evident that its action cannot be upon the unstripped muscle. The peculiar action of this muscle which is acted upon only by mechanical stimulus—one part contracting while another relaxes, this again taken up by another portion of muscle similar to the vermicular motion, so well marked in the intestines, is also against a direct action from the ergot. The true explanation to the action of this drug upon the uterus must be upon the peculiar construction of the mucus membrane of the body of the uterus and the peculiar changes that take place in the pregnant state. The structure of mucus membrane varies in different situations, though in certain respects are alike. We find a layer or layers of epithelium, connective tissue, glands, blood vessels, lymphatics and nerves, with a sub-mucus of muscular fibre cells. The mucus membrane in the unimpregnated state is thin, pale and soft, and closely adherent to the sub-mucus. It varies, however, at different periods, in thickness, consistence and vascularity. Between this membrane and the uterus proper is a layer of connective tissue, loosely adherent to the mucus membrane, and it is in this layer of connective tissue that the blood vessels run. Here, also, we find the terminal nerve fibres. By the action of ergot upon the peripheral nerves, and as it may be applied in the case of the uterus to the nerve termination, in the connective tissue between the mucus membrane and muscular part of uterus, we can well conceive how an irritation might be set up against the muscles of the uterus. As in other parts of the body, so here we find that by the action of ergot upon peripheral nerves, it tends to contract the capillary blood vessels found in the connective tissue, arresting a further supply to the mucus membrane. This arrest of nourishment disposes it to peel off, and lose its connection with the uterus, and acting as a foreign body so irritates the muscular fibres of the uterus, as to be a mechanical cause of their vermicular contractions. This same action, however, can be produced by any nauseant drug, but the advantages of the ergot is its soporific action, thus relieving to some degree that sense peculiar to a drug exclusively nauseant. But what shall we say of ergot as given in hemorrhage as in the four cases above cited, without producing contraction of the uterus.

The answer is simply this: If the conditions of the uterus are such, that upon the arrest of hemorrhage there does not re

main a sensitive surface to the uterus, having in close contact thereto a substance that will act mechanically as an irritant to that sensitive surface, there will be no action on its muscular walls. Let a female take ergot when the uterus is empty and there is no effect whatever felt. If she takes ergot while menstruating, the only effect is either a partial or total arrest of menstrual flow. The circumstance of this arrest does not lie in the blood, for by an analysis of the blood after the administration of ergot it was found to have precisely the same amount of fibrin. The arrest of hemorrhage is also seen in the conservative process of nature. If by severing a large blood vessel, a person loses a certain quantity of blood, he faints, and the bleeding is at once arrested. Just so the anodyne effects of a drug, which at the same time acts upon the peripheral nerves.

In the cases above cited, the action of ergot did not go so far as to relieve the muscular walls of the uterus of its mucous membrane, and consequently did not leave a sensitive surface, nor a substance to irritate the same; hence we do not find that the ergot acted in any way towards producing contractions of that organ. If, however, ergot was a direct cause of the contraction of the uterus, we should have on the other hand contraction of that organ before a hemorrhage could be stopped, and certainly a dangerous drug in cases of pregnant uterus. Further, if hemorrhage of the uterus could only be arrested by contraction of that organ, or of its muscular fibres, how could we explain the phenomenon of an arrest of hemorrhage by subcutaneous injection of morphia. Again, how could it be possible to arrest hemorrhage if it be true that it takes place by contraction of the uterus, without doing great violence to the child in utero.

In my fourth case cited, the lady told me that while the medicine was being taken (i. e. the ergot), she did not notice that the child in utero ceased its activity, except when she was so faint after losing very much blood, but that when she revived the child did so too. Indeed, the child was motionless before she had taken ergot at all.

If, on the ground that the arrest of hemorrhage is due to an irregular or alternate vermicular contraction of the uterus, while one part is in a contracted condition, another part must be relaxed to balance the force exerted upon the child, in order not to destroy its life. But here again we could have an occasional gaping open of the mouths of blood vessels, which is certainly against known facts, for when the hemorrhage ceases, it is gradual and steady, with no irregular jerks and spurts.

If it be true, that capillary hemorrhage is arrested by ergot in other parts of the body, by its action upon the peripheral nerves, and cases and facts are too numerous to disprove its truth, we should not take other and irrational grounds to explain its action upon the uterus. It is too much like the surgeon who said he could treat an inflammation of a joint or a whole leg, but of inflammation of the eye he "preferred to be excused." The soporific properties of ergot is certainly not like opium or morphia, for their action is first an excitant to the nervous system, followed by relaxation from possibly undue stimulation, but it acts more after the form of the bromides, by giving healthy tone to the nervous centres, thereby enabling them to do proper work.

Art. 7—The Statistics of the Medical Profession of Cincinnati for Twenty-five Years, and an Allusion to Preventive Medicine.

An Address to the Graduating Class of the Miami Medical College, March 1, 1876. By WM. B. DAVIS, M. D., Professor of Materia Medica and Therapeutics.

To-day is your Commencement Day. I have often thought that the term Commencement Day, as applied to the closing exercises of an academic course, when a lot of boys were returned to their fond mammas, with no preparation, and scarce a thought of their life-work, was a misnomer. But when I remember that this day signalizes the closure of your pupilage, and the beginning of your life-work, I feel that the day is appropriately named. This is of a truth your Commencement Day. Your race for life begins to-day, and for you who would win, there is to be no letting up until the Master says, "Enough! Come up higher." You have passed inspection and are eager for the race. Your trainers have pinned on your colors, and you are in position before the judges stand, awaiting the signal to start. "Life is the race; years, not miles, measure the course, and a decade constitutes a heat." Will you all come in at the end of the first heat? How many will wear the ribbons of success at the completion of the second heat? As I look into your resolute and hopeful faces, and know how great the odds are against you in the struggles that await you, I can not but exclaim, as the great Abernethy once did, when he addressed a large concourse of the medical students, "God help you all! What will become of you?"

Sir James Paget, in the St Bartholomew Hospital Reports, (Vol V, page 238) undertakes to answer the question, "What becomes of medical students?" From notes taken by himself or assistants, he is able to give the careers of 1,000 students who were pupils of the St Bartholomew Hospital and attended his lectures. His observations are based on the first fifteen years of their professional lives. Of the thousand, he says: Twenty-three achieved distinguished success— $2\frac{1}{2}$ per cent.: 66 considerable success— $6\frac{1}{2}$ per cent.; 505 fair success— $50\frac{3}{4}$ per cent.; 87 died within twelve years of commencing practice.

Of the remainder he says: "They were just living, and that not well," or were outright failures. "In this table they are classified as having *achieved distinguished success* who, within fifteen years after entering, gained, and to the end of the time maintained, leading practices in counties or very large towns, or held important public offices, or became medical officers of large hospitals, or teachers in great schools, as professors," etc.

"Considerable success is ascribed to those who gained, and still hold, high positions in the public service, or leading practices in good districts, or who retired with money earned in practice, or gained much more than ordinary esteem and influence in society." "The fair or moderate success which was the lot of rather more than half those whose histories are known, was that measure of well-doing which consisted in having a fair practice—enough to live with—maintaining a good professional and personal reputation, or in holding ordinary appointments." He adds: "I believe that what may be told of the pupils of St. Bartholomew, would hold true of those of all metropolitan schools." Before reading Mr. Paget's article, the same inquiry had often presented itself to my mind concerning the young practitioners of medicine who settle in Cincinnati. This inquiry was suggested by observing the bright golden signs, which announce the advent of young physicians, and then shortly afterward missing most of them. Whence they came, or whither they went, no one seemed to know or care. As I missed one after another of them, I thought of the history, possibly, the life which centered in them. Each one told of years of preparation—years probably of privation and toil—of noble aspirations and brilliant expectations. I thought of how eagerly, for years, their owners had looked forward to the proud day when they could write Doctor in bright letters. Like the golden mill-stone of ancient Rome, toward which all roads ran, and from which all distances were measured, their thoughts by day, and dreams by night were centered in it, and from it all their plans and all their hopes for the future were dated. From this day their bright imagination saw broad avenues which lead by easy ascent to honor, distinc-

tion, wealth, and glory. I fancy I see them upon that auspicious day ordering their signs. Were signs ever so beautiful as theirs, or did just such names ever grace such signs? They are worthy of the gold which proclaims them to the world. They hang them upon their outer walls, and frequently promenade on the opposite side of the street and casually look at them. They have made a study of signs, having observed all in the city, and their candid opinions, privately expressed, are that their signs are a little ahead of any—thing ever gotten up. It is true the great mass of humanity go surging by just as if they did not see them: but they do see them, and way down in their cold hearts they envy the happy owners. Small boys stop and gaze in honest admiration, just as the grown-up dolts would be glad to do if the conventional rules of society did not prevent.

They have now formally announced themselves to the world, and must be ready to receive the patients and dollars which will flow in upon them. They wait exultingly the first month; cheerfully the second month; hopefully the third month; dignifiedly the fourth month; anxiously the fifth month; apprehensively the sixth month; desperately the seventh month; hungrily the eighth month; starvingly the ninth month. Then, in the still hours of the night, they tremblingly remove their signs, and shaking off the dust from their mantles—more in grief than anger—they silently and noiselessly pass into oblivion. I never knew in what paradise or purgatory these disappointed doctors found a resting place, except in one instance, and singularly enough that instance turned up the very day I wrote this paragraph. He appeared in the manly form of a well-to-do shoemaker. I confess to you that I honored that successful shoemaker more than I could have done the poor doctor. My thoughts having gone out in this direction, Sir James Paget's inquiry determined me to attempt a solution of the question, at least so far as the statistics of the medical profession of Cincinnati for twenty-five years can answer it. This inquiry into the statistics of the medical profession in Cincinnati for the twenty-five years ending December 31, 1875, is based upon the Cincinnati Directory, and embraces members of all schools of medicine, as well as those who are independent of schools. In a word, it embraces all whom the broad charity of a city directory calls doctors.

The following table (A) shows the accessions and losses to the profession by periods of five years.

There were in Cincinnati, in 1850-51 seventy-eight physicians.*

* Of the 78 Physicians in practice in Cincinnati in 1850-51, 20 are dead, 24½ per cent; 32 left the city, 42 per cent.; 26 are still in practice, 33½ per cent.

TABLE A.

	Accessions..	Losses.....	Average annual gain..	Average annual loss..	Remaining..
1850-55	275	148	55	29 3-5	205
1855-60	211	201	42 1-5	40 1-5	215
1860-65	230	199	46	39 4-5	246
1865-70	271	185	54 1-5	36 3-5	334
1870-75	387	320	77 2-5	64	401
	1,374	1,053	.....	.....	.....

The average annual accessions were 55; the average annual losses were 42 $\frac{1}{5}$; the average annual number of physicians was 249; the mortality for the number could not exceed 62. As there were yearly accessions and departures, the mortality was probably less than 50.

TABLE B.

Classification of the Physicians of Cincinnati, 1851 to 1875. By years, based on the Cincinnati Directory.

	Regular.	Homeopathic.	Eclectic.	Botanic.	Unclassified.	Total.
1850-51.....	55	7	15	1	.....	78
1852.....	50	8	12	1	.....	71
1853.....	156	14	19	5	8	197
1854.....	.....	.....	.....	...	.....	.....
1855.....	131	18	19	4	33	205
1856.....	140	17	27	6	12	202
1857.....	160	17	20	5	15	217
1858.....	168	18	25	9	13	233
1859.....	167	17	22	8	21	235
1860.....	150	11	17	2	35	215
1861.....	174	14	22	7	46	263
1862.....	137	15	21	7	38	218
1863.....	132	18	16	7	48	221
1864.....	136	21	15	6	43	221
1865.....	142	21	17	5	61	246
1866.....	172	24	22	4	63	285
1867.....	179	24	21	4	67	295
1868.....	188	18	16	3	88	313
1869.....	177	21	18	3	91	310
1870.....	219	20	16	5	74	334
1871.....	211	28	17	3	93	351
1872.....	223	22	13	3	89	350
1873.....	232	29	15	4	89	369
1874.....	272	25	16	6	91	410
1875.....	264	25	14	5	93	401

From 1850 to 1860 the Directory classified the physicians by schools. After that period the classification was continued by the writer. By this classification it is shown that during the whole period, two-thirds of all who called themselves physicians were members of the regular profession.

The significant fact developed by these statistics is, that during the period of observation a regiment of 1,374 strong, of hopeful, ambitious doctors marched into Cincinnati, and a regiment 1,053 strong, of dejected, disappointed doctors marched out. Annually a company of fifty-five brave young men marched up to this Moloch, and only thirteen are accounted for at the end of a brief year—forty-two were missing. Three in every four lost, did any fiercely-contested battle-field ever report such losses as these? This is not all. Of those who remain, but a fraction achieve considerable success, whilst the majority obtain but a bare living. I think that I shall be safe in stating that one-fourth of the physicians of Cincinnati receive three-fourths of the receipts of the entire profession.

If the fifty young men before me—fifty as noble and worthy young men as any institution ever conferred the degree of Doctor of Medicine upon—were to settle in Cincinnati to-morrow, it is possible that only twelve would respond to roll-call one year hence. This is a dark and discouraging picture to present to sanguine men just crossing the threshold of the profession. But you had better face it now than experience it hereafter. A wise mariner when about to sail into strange waters, is more intent upon learning the location of the shoals, reefs, and hidden rocks than where there is fair sailing. In order to make a successful voyage, he must avoid these shoals and rocks, and, in order to avoid them, he must know of their existence and location. The causes of failure in so many members of our profession, as well as the causes which prevent many others from attaining “considerable success,” are known and can be avoided. As intelligent men you must know them, and as successful physicians you must avoid them. These causes may be grouped under three heads: (1) *Deficiency in preliminary training*; (2) *deficiency in medical training*; (3) *deficiency in zeal, industry, and studious application after graduation*.

1. This class embraces those whose early education is insufficient for a proper comprehension of the difficult problems of medicine. Three-fourths of all who entered the arena in Cincinnati failed outright the first year. They probably belonged to this class. Their vessels were not seaworthy, and

they stranded near shore, in fact they were never launched. They may float in ponds and shallow creeks in a leaky condition, but can never venture upon the great ocean, or even enter a respectable stream.

2. This class embraces those whose previous training was sufficient, but who did not avail themselves of all the aids which a thorough medical education affords. It embraces a large number, and is referred to by Mr. Paget as those "who were just living, and that not well."

3. Those whose previous training and medical education were all that they should be, but who, when having successfully accomplished the prescribed curriculum of their colleges, relax their mental grasp, and allow the pleasures and indolence of the world to come in between them and the success which was within their grasp. After numerous brilliant, spasmodic efforts, they settle down into Mr. Paget's class of "fair or moderate success," having a fair practice, enough to live with, and maintaining a good professional and personal reputation, or in holding ordinary appointments." If this classification be correct, it must logically follow that those who would attain distinguished success, (1) must have a good preliminary education; (2) they must be thoroughly grounded in every department of medicine, and not only have the ability to comprehend, but must actually master the problems of medicine; (3) they must patiently, diligently, studiously, zealously, and heroically devote themselves to their profession, forsaking all others and clinging only to it.

You say these are speculative conceits, incapable of demonstrative proof. Well, let us see: Probably the competitive examinations for the position of resident physicians of the Cincinnati Hospital furnish men who correspond more closely to the above requirements than any other class of medical gentlemen we can name. The aspirants for this position are usually from the best qualified students of the several medical colleges. Of course, not all who are qualified are aspirants; inclination, home-duties, and previous obligations preventing many.

For the purpose of an investigation we must confine ourselves to the physicians of Cincinnati who were house physicians of the "Commercial Hospital"—the present Cincinnati Hospital, prior to the year 1851. Inasmuch as in those days but two resident physicians were selected each year, and some of them, after their term of service had expired, located elsewhere, the number in practice in Cincinnati in 1851 can not have been large.

Of the physicians in practice in Cincinnati in the year 1851, who had been house physicians in the Commercial Hospital, all, except one, who was compelled to leave the profession because of impaired hearing, achieved "considerable success," and the majority, "distinguished success." All of them took positions in the front rank of the profession soon after entering it, and maintained them through the whole period, or until death called them hence. All of them held high social positions; four-fifths of them held honorable positions in hospitals and colleges; over three-fifths were professors in medical colleges; nine-tenths amassed wealth, or sufficient means to enable them to be comparatively independent. The others made good livings, but did not save much. Most of them were the sons of poor men—hence family prestige and the potency of wealth were not factors which contributed to their success.

What a remarkable record? What an honorable record? What a suggestive record! To live such lives, and attain such success by your own unaided exertions and undaunted pluck, is grand. The names on this record are known to you, and are household names in the homes of this great city. Let me call the roll, for it is the roll of honorable men, who have performed honorable deeds, and who merit honorable mention: Jesse P. Judkins, J. Bird Smith, H. E. Foote, John A. Murphy, John Davis, David Judkins, W. W. Dawson, O. M. Langdon, J. H. Tate, J. S. Unzicker, F. Rolker.

These men came to this great city without the trappings of wealth. They entered single-handed upon the practice of their profession, and achieved distinguished success because they made themselves worthy of success. Sir James Paget's observations confirm this statement. He says: "Nothing appears more certain than that the personal character, the very nature, the will, of each student, had far greater force in determining his career than any helps or hindrances whatever. All my recollections would lead me to tell that every student may draw from his daily life a very likely forecast of his life in practice, for it will depend on himself a hundred fold more than on circumstances. The time and place, the work to be done, and its responsibilities, will change; but the man will be the same, except in so far as he may change himself." Noble, encouraging words! Gentlemen, the future is before you, but your fortunes are in your own hands. You can write your histories to-night, and the next twenty-five years will but verify them, if you will. I have shown you how the majority of you can fail, and I have also shown you how all may succeed. Which course will you pursue? No power on earth can prevent your attaining success but yourselves.

Perhaps it would be better to stop just here. I have consumed nearly all the time which properly belongs to a speaker on such an occasion as this. I find myself, however, unwittingly following the example of some German scholars who publish long introductions to works they expect to write in the future. In the address I have mapped out in my mind, the remarks I have just made were but the introduction to what I had expected to say to you.

I had intended showing you that, besides thorough preparation and skill in diagnosing and treating disease, the physician of the future must be able largely to prevent disease. I shall, however, be compelled to relinquish my purpose and content myself with simply calling your attention to the importance of *preventive medicine*. It is grand to be able to arrest a diseased process, which, unmolested, must result in death, but it is grander to remove the conditions which produce the diseased process. Much has been done in the past by the profession in this direction, and much remains to be done. By its agencies, diseases, which formerly swept over the world like destroying angels, have ceased to exist. The "sweating sickness," "black death," and "the plague," are only known by name to physicians of the nineteenth century; yet in 1665, when London was only a small city, the latter disease destroyed 68,000 of her people. In the same city in 1558, the fatality from ague was so great that one writer records that the living could hardly bury the dead. Who dies from ague now? Scurvy was formerly so deadly a foe to all who traveled the sea, that as late as 1776, an Admiral (Hosier) of the British Navy, "sailed on a cruise with seven ships, and buried his ship's company twice from scurvy, when he himself died from it." Before the time of Jenner, small-pox destroyed annually over 200,000 human lives. Now, scurvy is a disgrace to any fleet, and small-pox an opprobrium to any community. These foul and loathsome diseases, particularly the latter, are so amenable to known laws that the responsibility for their very existence rests upon our State and Municipal Legislatures. During the past two hundred years the mortality in London has been reduced from 42 to 22 per 1,000. Just think of it, 20 lives in every 1,000 persons saved every year. London has a population of over three million—60,000 human lives saved annually. It has been estimated by careful political economists, that an average human life is worth to the State, for what it produces, \$1,200. Suppose it be only \$1,000, this sum multiplied by 60,000 gives \$60,000,000.

If these persons had died the average duration of their illness would have been at least fourteen days, at a cost of \$1.00

per day, would be \$840,000; the cost of a nurse, for each, at \$1 per day, \$840,000; the cost of medical attendance and medicine, at \$1 per day, \$840,000; the cost of burying 60,000 will average \$10 each, \$600,000. Total, \$63,120,000.

If, in addition to this, we estimate the loss from interruption to trade, the closure or bankruptcy of business houses and manufactories from the death of the managing heads, the number of women and children left destitute, and cast upon the State for support, and many other losses which naturally suggest themselves to all, it will not be difficult to see how this sum may be doubled. But, says some one, this is all in London, and does not affect us. Well, let us come nearer home, and take the State of Ohio. It has just about the same population as London, about 3,000,000. Now apply the above figures, and you will know what this reduction in the death rate has saved the great State of Ohio. The causes which brought about the grand result in London are as operative in Ohio as in that city. The discoveries of science know no boundary lines, but extend a helping hand to all humanity.

Great as these results are, there are as important and momentous questions affecting the human family to be solved, and earnest and able members of our profession are devoting themselves to this solution. Foremost among these are Mr. John Simon, M. D., Medical Officer of the Privy Council, England. In his report, July 29, 1874, he says: "That the deaths which we in each year register in this country (now about a half a million a year) are fully 125,000 more numerous than they would be if existing knowledge of the chief cause of diseases, as affecting masses of population, were reasonably well applied throughout England, is, I believe, the common conviction of persons who have studied the subject." In our own country, as well as elsewhere, writers are establishing the intimate relation of diphtheria, enteric or typhoid fever, and most zymotic affections, with sewer gas, excremental pollution of respired air, etc. This gas and filth is the deadly enemy of every household where they gain admittance, and very few are free from them. Indeed, the wealthy, who have all the conveniences of modern life—water-closets, sewer connections, etc., in their houses—are in more danger often than their less prospered friends. They may not only bring the specific contagion of certain maladies, but generate them *de novo*. It is admitted that they nearly cost the life of England's heir to the throne, the Prince of Wales, and they are believed to have been the chief agents in disabling and destroying so many lives of our public men at the National Hotel in Washington some years since.

Mr. Simon, in his able report to the Privy Council, (1874) clearly demonstrates that nearly all the zymotic diseases originate from filth. The United States census report in 1870 over 70,000 deaths from diseases falling under this head. Mr. Simon uses the word "filth" as applied to diseases "distinctively in the sense which suggests subject matter for sewers and scavenging." Speaking of the way in which filth affects health, he says: "There are sections of towns where general slovenliness in everything which relates to the removal of refuse matter, slovenliness which in very many cases amounts to utter bestiality of neglect. Within, or just outside each house, lies for an indefinite time, undergoing fetid decomposition, more or less of the putrifiable refuse of house-life and trade-life—excrement, garbage, or slop-water. With this state of things, two chief sorts of danger to life arise—one, the volatile effluvia from the refuse pollutes the surrounding air and every thing it contains; the other, that the liquid parts of the refuse pass by soakage or leakage into the surrounding soil, and occasion the deadliest pollution of the wells and springs. In Frankfort on the Main, Germany, in 1872, an epidemic of typhoid fever affected a certain locality, and it was discovered that those only who used water from a certain public pump were affected. An examination of the well revealed the fact that there was a soakage or leakage from refuse and excremental masses into the well. Eleven deaths were known to have occurred from the use of this water.

In Cincinnati, where the value of money seems to be held in higher esteem than human lives, garbage and the refuse of houses are utilized for making fills, streets, etc. In the eastern part of the city, a portion of the chief avenue leading to the Garden of Eden is over this putrescent filth, and one of the connecting arms is entirely composed of it. The latter is 400 feet long, 100 broad, and 50 deep. Here goats, hogs, and vermin revel. All who enjoy the pure air of Eden Park must not only have their senses of sight and smell outraged, but expose themselves to some of the deadliest foes to human life.

Mr. Simon says: "In filthy urbane districts * . * * the population always shows an increased mortality under several titles of disease, and a distinctively large portion of it attaches to the children. Apparently the mere influence of the filth (apart from other influences) in such a district will be causing the infants and young children to die at twice, or thrice, or four times their fair standard rate of mortality; and this disproportion seems to mark the young lives as finer tests

of foul air, than are the elder and perhaps acclimatized population."

Stephen Smith, M. D., N. Y. (*Sanitarian*, 1875, p. 289), says: "On an average of years, of all the persons who die annually in this city (New York), about one-half are children under five years of age, and three-fourths of these children were under one year, one half of them died of zymotic or ferment diseases; some writers call them foul air, others filth diseases.

According to the United States census, 203,212 children under five years of age died in 1870 in the United States, 42 per cent. of the total number of deaths. Is it inevitable that one-half of all who were born shall die before they are five years old? Christianity, reason, humanity, science, all say nay. Mr. Simon, in twenty-four English cities, shows a reduction of 3 per 1,000 in the annual death-rate upon the introduction of sewerage, improved water-closets, and good water-supply. If the National, State, and Municipal authorities were to cordially aid our profession in the execution of those means and methods that are now well known, there would be a reduction of at least 100,000 in the annual death-rate of the United States. In the year 1800 Jenner announced to the world that vaccination would prevent small-pox, and the verdict of the united profession to-day is, that if Jenner's discovery were to be systematically applied the world over, small-pox would cease to exist. In the teeth of all this evidence we find that in the four months ending February 29, 1876, there were, in round numbers, 1000 deaths from small-pox in Cincinnati; and probably there were 10,000 cases of the disease. This wanton, useless, criminal waste of life is a blot upon the fair name of our State and city. Vaccination and revaccination should be made compulsory, and small-pox constituted a grave offense against the state. Dr. Benjamin Lee, in a paper read before the "American Public Health Association," in 1875, shows that the city of Philadelphia, in consequence of the presence of small-pox in the winter of 1871-2, sustained a loss of \$25,478,977. Assuming that the population of Cincinnati is but one-third that of Philadelphia, and its business interests but one-third the magnitude, it will be reasonable to conclude that the loss sustained by the city of Cincinnati, in consequence of the small-pox epidemic of 1875-6, is one-third as large as that sustained by Philadelphia—viz.: \$8,492,992. I had designed verifying this by a close investigation into the losses sustained by the various interests affected by it, but neither time nor space would admit of it.

Our public schools are our honor and our pride. As conservators of their interests, you must see that every hindrance

to their strength and prosperity be removed, so that the public schools shall always excel in a healthful and rational scholarship. "Mens sana in corpore sana." Children enter our public schools at six years of age, just after having emerged from that struggle for life wherein every other child goes under. They are immediately, as a rule, put into a school-room, where all the conditions of life are against them—overcrowded, imperfectly lighted, poorly heated, badly ventilated. Formerly it was much worse, when the grades of the intermediate schools were a part of the district schools. Then, in order to live up to the rule of the Board of Education, which required the general average of forty-five pupils to the teacher, the little ones of the lower grades were packed so densely that none but the strong and vigorous could long endure the crowd-poison. It is still bad enough, as evinced by a report of Prof. E. B. Stuntz to the Board of Education in 1872, "on the Condition of the Air of School Buildings." His analysis of the air of five school buildings shows that there is from $10\frac{1}{2}$ to $14\frac{1}{2}$ parts of carbonic acid in every 10,000 volumes of air. A high authority says, "Occasionally air may seem pure to the senses, when the carbonic acid is 7 or 8 per 10,000 volumes, but the usual rule seems to me is, that when it exceeds 6 the air commences to be perceptibly impure. When the carbonic acid reaches 9 or 10 per 10,000 volumes, the air is what is called close and musty; above this it becomes disagreeable."—[*Parkes*.

In England a commission reported that from 400 to 600 cubic feet of space were necessary for each person, and that there should be sufficient ventilation to change the atmosphere twice an hour. From the report of the Superintendent of Public Schools, 1875, to the Board of Education, (Cin.) page 64, I find that fourteen of the twenty-seven district schools have less than 200 feet of space per pupil.

The reckless disregard of proper modes of conveying light into our school-rooms is damaging the eyes of the scholars to an alarming degree. Drs. D. B. Williams and S. C. Ayers recently made an examination of the eyes of 1,264 scholars of the Public Schools of Cincinnati, with the following results: "In the District Schools 13.27 per cent. of the scholars were near sighted, in the Intermediate Schools 13.8 were near-sighted, and in the High Schools 22.75 were near-sighted."

I must stop now, although of necessity I have given you but a few of even the surface indications of the great field of investigation, study, and work upon which you are now about entering. If in this final hour of your college life I have im-

pressed upon your minds this one thought, viz: That thorough preparation, entire devotion, and unflagging labor are prerequisites for success, I will have accomplished my purpose.

Your mission is to cure disease, and prevent disease. Your apprenticeship has ended. The portal is open. Your field of labor is in sight. Your place is in the abode of human agony, and in the haunts of pestilence. Take your position with the workmen, beside the couch of the suffering and dying. Your antagonist is death; human life is at stake; see to it that you contest his advances by every known method of skilled warfare.

May God help all of you who are worthy of success, and gently lead those who are not into other pastures. Farewell.

Art. 8.—The Medical Pendulum.

An Address delivered before the Alumni Association of the Miami Medical College, Cincinnati, at the Annual Meeting, February 28, 1876, by G. R. PATTON, A.M., M.D., of Lake City, Minn.

"Vigilemus."

"Facultate Magis Quam Violentia."

* * * * *

The first and most important element requisite to a more stable and intelligent standard of therapeutics is, that great *desideratum*, so much and so justly insisted upon during the past decade, viz.: *A recovery from the low standard of medical education which the multiplication and competition of starveling and rival schools has developed in this country; or its corollary, EDUCATED MEN.*

The truth of the statement will probably be conceded, that the multiplication of schools upon the present basis tends to lower the standard of professional education. Professional sentiment should be so directed as to compel the closure of the minor colleges in the country towns. Their existence is an unpardonable vanity. There can be no solid instruction without ample clinical and autopsical material, even if this were all that was wanting. When the schools are required, as eventually they must be, to adopt the Harvard method, or its equivalent, the smaller ones will, undoubtedly, surrender to the metropolitans. Until then, they will multiply rather than decrease.

The importance of a radical change in the *plan* of medical education, now in vogue, may seem so apparent and imperative, as hardly to require argument or advocacy. The present one was excellent for the time when adopted one hundred years ago, but we have as completely outgrown it, as the general system of education

now surpasses that of a century ago. Beside, the status of the student is not the same. The demands upon him are vastly in excess of the olden time. Then, the text-books were brief treatises upon a few subjects only. Now, they embrace exhaustive works in every department of medical science, with which the student should be familiarly acquainted. Then, the stethoscope, microscope, laryngoscope, sphygmograph, thermometer, etc., were either unknown or unused in diagnosis. Now, they are as much required in the repertory of the scientific practitioner, as the hammer, plane and saw in the chest of the carpenter.

The course of study should be extended to three years, be a graded one, and be continued through the year. The prevailing system is about the same as the mathematician beginning with trigonometry; the chemist with organic matter; or an individual commencing the subject of mechanics with the steam engine. No classification or gradual approach is attempted according to age or acquirements. From the first day of the session, facts, principles and laws are stated in advance of the phenomena, data or premises from which they are deduced, giving the student no opportunity for reflection or deduction. Information is epitomized into the most concentrated form—necessitated by the brevity of the session—and crowded upon the student in a dismal way, by experts in the respective departments. The fundamental elements, anatomy, chemistry and physiology, are so jumbled with theories, opinions, the extensive and perplexing details of inflammation, and the tangled meshes of other morbid processes, that the unfortunate student, even if animated with a sincere desire to learn, becomes so puzzled over the multiplicity and intricacies of the subjects, that he falls hopelessly behind. Instead of advancing to a knowledge of disease, by a gradually progressive and logical method, founded upon, previously acquired elementary principles, he comes precipitately, as it were, to consider the various diseases as entreties, having no definite or necessary connection with physiology, pathology or anything else. At the end of the session, he may be expected to go despairingly homeward from the “jargon of the schools,” with his diploma, and a hopeless muddle of unassimilated knowledge.

Ordinary colleges and universities require a four years' course as a prerequisite to graduation. Such an extended course, while in every way advantageous and desirable, may not, probably, be absolutely necessary in medicine. The student's education should be advanced enough, however, to admit him to the senior class of any reputable college, and this should be assured by an examination prior to matriculation. A certain amount of familiarity with Latin is needed to understand properly the technical terms; while a considerable knowledge of Greek is essential to comprehend the nomenclature of medicine. Without this modicum of cultivation of the memory, and training of the perceptive and deductive faculties, there can not be that mental discipline or grasp for acquiring

knowledge, acuteness of observation, and drawing correct conclusions, requisite to a mastery of the subjects in the curriculum of instruction.

That solemn farce, or empty show of reading medicine in a country doctor's office, as usually carried out, should have become obsolete long before the present generation were born. Practically, at the present day, it amounts to nothing. The average country practitioner always lacks the time, and usually the inclination, to give any attention of value to a student. His protégé, may, it is true, see an acute case, now and then, with the routine of the office, made up, for the most part, of cases coming once and observed at random. This, with a little desultory reading of a few old editions, of still older works, fits him, it may be, for practice, or, for the first course of lectures; and the latter he is yet inscrutably permitted to attend without any examination whatever.

Another abuse in the present method, is the acknowledgement of a few years of hap-hazard experimental practice, or, a *certificate to that effect*, as the equivalent of one course of lectures. In the present state of medical science, one might be permitted to believe, that such presumption and temerity, would almost debar any individual from ever gaining access to a medical college. There can be no student more hopelessly unimprovable and unmanageable, than he who has had just enough of such unguided experience to make him conceited. The time requisite to unlearn the faulty habits of observation, and the heedless methods of practice, accruing from such self-imposed education; and to undo, if ever, in protean forms, the evils entailed upon the victimized sufferers, we may never know. It would seem to us as little less than a crime, for an untutored man to prey, in this manner, upon a community, if the long continuance of the usage had not made us callous to it. Often, with no library beyond an elementary treatise on practice, surgery and the dispensatory; or only a hand-book combining the three in one; the quasi-doctor rides forth to the "slaughter of the innocents," a squanderer of drugs, and, it may be, a scourge more fearful than pestilence itself.

Exceptions, in either case, of course exist, but not enough, unfortunately, to invalidate the rule. Great minds arise from all classes. Genius, they say, is irrepressible, and will struggle to the surface in spite of every obstacle.

The deplorable deficiency of primary culture and training so often observed in the profession, may explain the slight popular estimate accorded to us, compared with a hundred years ago. Then, the doctor was a power in the land. His opinions were indisputable, his dicta were laws. "To doubt his knowledge, to disbelieve his statements, or to disobey his injunctions were heresies unknown. His very title snacked of learning and authority. A doctor, a teacher in medicine, he was to all, as his name implied. Once established by the slow and regular law of succession in practice, in the place of his choice, there he remained a useful and much used

fixture until he died. No one thought of changing his family physician any more than he would change his church. No one thought of doubting the doctor any more than he would doubt his creed.*

How changed is all this now! Any young man, merely able to read, write and cipher, with a memory untrained, perceptive and reasoning faculties unexercised, one, in short, whose brain has lain fallow all through life—a good enough nurse, mechanic or agriculturist, perhaps—such an one, possibly can, at the present time, in less than a twelvemonth, carry home a veritable diploma to his admiring friends and a *surprised* public! Now, it may have really happened that this medical mushroom, say rather this toadstool prodigy, had a friend in his native place, with like talent for ignorance, though less ambitious, who entered a blacksmith-shop to learn honestly in three years his trade, at the same time that he journeyed to the college of his choice. Behold! A full grown Doctor Medicinæ stalks into the shop of the poor smith, before he has half learned his trade!

This is not a cunningly devised caricature, nor a fable; but, essentially, a matter of fact of not uncommon recurrence. It is the unvarnished statement of an obvious truth, and if its agitation is heresy, it would be well that there were more heretics; if treason, let traitors be multiplied; or, if intoxication, let all drink deeper, but out of the same flagon.

So much baneful material, over confident because untaught, is yearly let loose from the numberless schools in every city and hamlet in the land, upon an unprotected public, that it has become thoroughly *poisoned*; has lost its better judgment, and has ceased to discriminate between truth and fraud. Is it strange, then, that the people, having no fixed data, save the diploma, to base judgment upon, have come to regard one physician, and any one system of practice as good as another, just as it does the average stonemason or carpenter?

Medicine is the “saddest of trades” to enter as an easy way to make money. For this end, the ignorant and unscrupulous enter it. All such are quacks from birth, mercenary quacks, who will not cultivate medical science, nor aid us in its advancement as far as they can; who will neither talk nor write to the profession; but who will, untroubled with scholastic terms, pour out ever so glibly upon the people, utterly irrelevant twaddle about impure blood, disordered liver, sympathetic irritation, reflected sympathy, *et id omne genus*. Their theories, too, are captivating in simplicity; they admit no difficulties, express no doubts about the name, nature, seat or causes of disease. Such men usually commence practice, by resorting to perturbatory and debilitating measures in a wholesale, routine way, in any and every condition; oblivious of the fact that the effects of powerful agencies, if not remedial, are necessarily injurious; and in extreme ignorance, too, of the dose in which they are tolerated, and that in which they must be

* Boston Medical and Surgical Journal.

administered to obtain their curative effects. Like Moliere's physician combatting disease with a club, they strike about them at random in the dark, without purpose or aim, hitting alike either friend or foe. After a while, at the expense of much villainous practice, they will blunder upon the fact, that their patrons survive or *perish*, quite the same, under, or in spite of every variety of conflicting or excessive medical interference. Thereafter, while a few of them, utterly devoid of discernment and observation, may continue this medical fusillade upon their patrons, the major part may be expected—although keeping up a shrewd pretence of medication—to lapse into an indolent distrust of valuable agencies, that they possess neither the knowledge nor the skill to use; and thus, unwittingly, unintentionally and *providentially*, may come to observe a maxim of practical wisdom, which admonishes “to be content with doing nothing, when ignorant how to do good.”

The cause of many of these evils, unfortunately, may be found in ourselves—in our own passiveness to abuses which have, step by step, gained a foothold among us; in the low grade of scholarship inviting pretenders into the schools, and the little required of them before entering our ranks. Purification should begin at the source or fountain head, at the portals of our schools.

At our last annual meeting, the President, Professor W. B. Davis, in referring to this subject, tersely and truly said: “An association like ours, having members in all the States, from Maine to California, can do much to counteract this demoralization of our profession. We can resolve that we will encourage no young man to enter upon the study of medicine who has not a thorough preliminary education, and we can resolve not to patronize medical colleges who will graduate incompetent men. An organization like ours can make public sentiment and control colleges.”

The animus of every Alumni Association should be in harmony with these sentiments of Professor Davis. Our motto should be “*Vigilemus*,” lest any one stumble and obstruct the road.

The student is only too apt to have any misgivings of his own appeased, by the eagerness with which he is now sought after by the schools; which, perhaps, must need say little about preliminary culture through fear of losing a new matriculant.

Let no man enter, then, except from love. If he is not infused with the ardor of science, if he is not intensely in earnest, and well prepared and willing for the work, let him be turned back at once, for he will surely fail of honorable success. Our venerable college President was wont and fond to say, “*Work, Difficulty, Struggle, Progress—THAT IS THE LAW.*”

The truth of this aphorism applies with redoubled force to the study of medicine. Take the initial element of it. John Hunter said that it requires twenty years of patient labor to learn something of anatomy, and in his day the field was a narrow one compared with the present. Even that *mite* of it—the eye—has engaged the attention of able minds, their lives

through, without exhausting its anatomy, physiology and therapeutics. I once heard our distinguished teacher, Professor Williams, (who honors us with his presence this evening), remark, that it was as much as he could do, by close application, to keep abreast with the advances in his specialty. An able physician, a resident practitioner, while in Berlin, resolved to devote some time to the study of anatomical and pathological microscopy. Upon consultation with the celebrated Virchow, as to the time probably requisite to its mastery, the applicant gave up in despair, when informed that by diligence, a fair knowledge of it might be acquired in three years, but that he had not yet himself become a master of it.

No one can expect, then, probably, to become wholly proficient in this initial element of the *ars medendi*, but all may become intelligently posted, and this can be attained only by strenuous practical effort; not by memorizing in books or on plates, but by the hand, with *the scalpel in it*. In this way only, can a student get such an insight into the subject as will prove of lasting and practical benefit. I once overheard a good student, with self-complacency, remark, that he could give the name, origin, insertions and relations of every muscle in the body, and I believe he could; yet, in reality he scarcely knew more of the anatomy of the muscles, in the true sense, than a parrot knows of real language.

The second fundamental element entering into a professional education, requires hardly less time and labor, for even a limited penetration of its mysteries; for chemistry is, strictly speaking, even more of an essential element than anatomy, as it has to do with the constituents of the tissues themselves. After the student has become well grounded in organic chemistry, there is yet a wide field for cultivation in the chemistry of poisons, in urinary analysis and the incompatibilities in pharmacy.

Practical chemistry is just now receiving merited attention. It is with pleasure we note the efforts now being made by our "fostering mother" in this department, since the following paragraph appears in the present annual announcement: "A new building has just been erected in connection with the college, exclusively for the teaching of Practical Chemistry, where, under the supervision of the Professor of Chemistry, students can acquire a thorough knowledge of analytical chemistry."

If time permitted a superficial glance at the remaining subjects of the ordinary didactic course, the fact would become only too apparent, that there was occupation over sufficient for the power of ordinary scholastic minds, without including those much neglected branches, Medical Jurisprudence, the History of Medicine, Pharmacy, and Practical Hygiene; which either receive no attention at all, or are clothed in apparel just scanty enough to hide the nakedness of their treatment. To say that it is impossible to obtain much more than a smattering of medical education, under the ordeal now in vogue, might seem a truism, and yet, however self evident the truth, we still keep plodding along in the well

worn rut which our ancestors grooved out generations ago.

Elevating the standard of preliminary and medical education, and securing thereby educated men, would *lay the foundation*, for as much stability as can accrue, probably, in an art made up of such a variety of varying factors; and, indeed, would seem, in the widest view of the subject, to include all that need be said upon it. Nevertheless, stableness thereafter may, I conceive, be more nearly approached, in proportion as certain essential favoring elements and methods are observed by, or can be secured in the individual.

The first of them in order and importance is, *Observation*. This faculty is, in some measure, a natural gift, like music, painting and other things. There are men who can not buy a horse without getting woefully cheated, even after having owned a dozen of them. They will buy and read all the books upon the horse so as to know, just "how to know him," and afterward buy one; and probably drive him a month before some acute friend tells him that his *new* Rozinante is eighteen years old, blind of an eye and spavined! A man who can not buy a decent horse, after having been swindled half a dozen times, is certainly not likely to be developed into a very profound medical philosopher. He may see a case daily, for weeks, with every symptom of uræmia, and treat it for cerebro-spinal meningitis, until his more observant consultant friend suggests the propriety of testing the urine. He may be surprised by having his patient, with chronic tympanitis, (?) cured suddenly by the trocar of his professional neighbor. He may be giving belladonna in the neuroses, until the pupils are enormously dilated, and have given thereupon an unfavorable prognosis; but may have his own eyes opened widely enough, when his friendly counsel mildly hints a cessation of the treatment. He may be treating a child in convulsions with asafetida and valerian, until his acuter brother recommends the gum lancet; and the chances are that ever afterward he will lance the gums in every case of spasms.

Some students are *sharp* observers from the beginning, but even the dullest may excite surprise by the keenness of his cultivated powers; for the observing powers, like all other attributes, may be vastly improved, under proper guidance and opportunity, by painstaking, perseverance and labor. Hence, the advantage of able clinical teachers and ample clinical facilities, in both of which this city, and in an especial manner, our alma mater, are abundantly supplied.

Mere observation, however, even if ever so acute, will not advance either the physician or medical science. Those who trust to their senses only, and *reflect* not, are in no degree better than the empirics of old, "who saw without discerning, administered without discriminating, and concluded without reasoning." They are but the similitude of him who—

"Saw with his own eyes the moon was round,
Was also certain that the earth was square—
Because he had journeyed fifty miles, and found
No sign that it was circular any where."

In the life of Sir Humphrey Davy, there is given a case, in which he, in conjunction with a physician, determined to try the effect of nitrous oxide in paralysis. Before administering the gas he inserted a thermometer under the tongue to get the temperature. The paralytic, supposing the thermometer to be the means of cure, expressed himself as being so decidedly improved that the gas was altogether dispensed with. The treatment by the thermometer was continued a few days and the man recovered.* Now, a mere observer would, probably, have noted or believed that "a thermometer under the tongue cures palsy," without reflecting as to the mode of its accomplishment. By the exercise of reason, on the other hand, he would have reached the conclusion that it was due to the influence of the mind or imagination over the system.

The exercise of *reason*, then, may be viewed as an additional factor essential to consistency and rationalism in medicine. It is upon this, indeed, conjoined with sound observation, that medicine as a science, is founded. The acquirement of a thorough preliminary education, not only strengthens the perceptive powers, but carries with it well trained reasoning faculties, and herein consists the chief advantage of early culture in the medical student. The mental processes and development implied in its attainment would, presumably, bring him to the work of observation, with such powers of induction, as would enable him to arrive at general principles or laws; and to deduce from them and from the recorded observations of others, correct rules or methods for his guidance in the management of disease. The incompetent or heedless observer can only arrive at false conclusions. This may equally befall the acute observer, if his mind is uncultured, or if he is a bad reasoner. It will happen to both alike, that their prognoses will be falsified; their diagnoses incorrect; their remedies misapplied; and their experience will have profited them nothing. It will prove no more aid to them than the stern lights to a ship, which illumine only the rough track that has been left behind.

One of the most prominent causes of vacillation and uncertainty in therapeutics is, the unphilosophical method of combining in the same formula, many different classes of medicinal ingredients. There are prescriptions brought to notice, from time to time, that would almost lead one to believe that they were to operate like a blunderbuss; that is, there is such a profusion of shot it would be extraordinary if some of them did not hit the mark; or that they were intended to have ingredients so numerous that the disease might choose that which it likes best. Such complexity may be stated to be in a direct ratio to the cloudiness of the diagnosis. Even simple combinations are usually rendered so uncertain by being subjected to the vital actions, that it is sometimes difficult to estimate their effects with precision; while in complex ones, every new ingredient, increases vastly the chances of error, and obscures the evidence by which such error may be detected or removed.

* Dunglinson's Therapeutics.

En passant, a point of importance as well as of expediency is suggested. The administration of medicines too often, and the employment, unless absolutely necessary, of odious, unpalatable and nauseating agents is to be deprecated. It militates against success, especially with children and supersensitive subjects; and may do harm also by taking away the desire for food, which any therapeutical effects may not sufficiently compensate. Medical men should not be slow to take advantage of the resources which the recent advances in pharmacy have placed within their reach; by using concentrated remedies, medicines in pleasing and palatable forms, and the hypodermic method whenever practicable.

Another element operative in like direction, is the lack of observation and study of the *known* physiological and therapeutical effects of accepted remedial agents. As a single example, reference may be made to that familiar and much used agent, ergot. Modern experience and investigation have demonstrated that the chief and characteristic manifestation of this drug, through its influence upon the vasomotor nerves, is the contraction of the involuntary or unstriated muscular fibre, wherever it may be found in the human body. It was upon the impregnated uterus, which is composed chiefly of this fibre, that this effect was first noticed, and it was used by women for hurrying labor long before it was known to the profession. It was employed by medical men also, before its general physiological effects were discovered; or, indeed, before a knowledge was acquired of its *modus operandi* upon the uterus itself. Now, one of the chief deposits of involuntary muscular fibre is found in the middle coats of the arteries; these fibrilla contracting under the influence of ergot, lessen their calibre and consequently the amount of blood passing through them. In this manner, the nutritive processes in diseased structures, through which the arterial capillaries are distributed, may be so modified as to restore those unhealthy textures to their normal state again. Hence, its therapeutic utility in capillary congestions, hemorrhages of the nose, lungs, etc.; in inflammatory and congestive affections of the brain and spinal cord, in hemorrhagic conditions of the uterus, and in vascular, polypoid and myo-fibroid tumors of that organ.

It will be conceded, that a precise knowledge of the physiological and therapeutical properties of remedial agents, will lead to a corresponding precision in fulfilling the various therapeutic indications and therapeutic objects, in any morbid states in which they may be clearly indicated, and thus found a substratum for future stability in medical practice.

Medicus naturae minister non magister est. Another factor promotive or explanatory of unfixedness in the *ars medicina*, appears to be, an insufficient recognition of the capacity or tendency of nature to restore many perversions of function and impairments of structure to their normal condition again. Or, to vary the statement, a misconception of the legitimate scope of drugs, by *impatiently at-*

tempting to encompass by their audacious handling, that which may be better effected, in many instances, by a wise and timely reliance upon nature's reserved force, or "efforts" so called.

Our nation, especially, is adjudged to be not a slow one in anything; over-sanguine, self-confident and impetuous; too impatient seemingly to await the slow and imperturable ways of nature, but always ready, with rude and interfering attempts, to jog her along. "Be reasonable and patient with nature who means well, but does not like to hurry, and who took nine calender months, more or less, to every mother's son among us, before she thought he was fit to be shown to the public."*

Time must needs be allotted to nature, and *patience* exercised by her servant—for the completion of the "succession of processes," denominated diseases. The duality conjoined are oftentimes the price of recovery.

For convenience, this vital principle has been conventionally or metaphorically phrased in a variety of ways, by recent writers, such as "efforts of nature," the "vital forces," "reserved power," "resisting principle," etc.; while early authorities personified various fictitious entities as presiding over the organism, as the "*vis medicatrix*," "*vis conservatrix*," etc. Nevertheless, whatever this force may be, it resists all morbid agencies which operate upon the body from without, and labors to expel those which are introduced within it. It enables the system to tolerate disease, to resist it, and to recover from it.

We see its manifestations constantly exercised in living bodies after the receipt of an injury. The newly altered action which is the consequence of the injury, leading to the reparation of the wound, without the intervention of art. For instance, where a part is cut, the capillary arteries carrying coagulable lymph, permit enough of it to exude to unite and hold the opposing surfaces together. Thus we have, technically speaking, union by the first intention. Again, under ordinary circumstances, the air passages are only moist; but if foreign bodies or particles accidentally reach them, this moisture is increased to a thick secretion, which entangles the foreign substance; and its removal is effected by a still higher evidence of complicated design, that is, by the reflex act of coughing. Further, we notice, conspicuously, the activity of this reserved power, in the unaided healing of compound fractures in man and the lower animals; affording a striking exhibition of the superior wisdom, evidence of design, forethought and adaptive dexterity of the Divine Architect, in shielding and guiding nature's processes.

This resisting principle is alive also to morbid influences of a general character; and unless of great intensity or persistence, succeeds, unassisted, in overcoming them. For example, if the cause is the general application of *cold*, the blood is propelled into the interior of the body, increasing or modifying the internal

* O. W. Holmes.

secretions, exciting the heart to increased activity, whereby the calorific function is increased sufficiently to overcome the cold; while, if *heat* is the cause, the blood is determined to the surface of the body and perspiration induced, the evaporation of which nullifies the heat.

From these several cognizable manifestations adduced, the presumption is certainly a *fair* one, that this force may accomplish equally as much in the visceral diseases of the hidden parts. Indeed, we admit its conservative provision in the development of hypertrophy of the heart, whereby evils are escaped which would otherwise arise from the impairment of the valves. Another striking illustration is afforded, in any case, wherein a main arterial trunk is ligated; since the anastomosing arteries become enlarged sufficiently to nourish adequately the tissues beyond. Another exhibition may be instanced, in the case of a disabled kidney; the sound one assuming the functional activity of the one diseased, and attaining development enough to perform the task. Still further, the occurrence of vomiting and purging in the progress of some renal affections, may be adduced as an evidence of the preservative efforts of the living principle within the organism; the object being to eliminate vicariously, through the alimentary tract, the urea or its products, which have accumulated in the blood. If necessary examples might be indefinitely multiplied.

It can hardly be doubtful, that the method, still to some extent in practice, of treating many chronic, functional, and all the self-limited diseases, as the exanthemata, essential fevers and the like, by measures which inordinately perturb, or impair the powers of life; or by agents which, in like doses, would make sound persons ill, is as much opposed to sound experience, as it is, to common sense and true philosophy.

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Art. 9.—Vaccination as a Preventive of Small-Pox.

[Continued from March Number.]

By W. C. CHAPMAN, M. D., Toledo, Ohio.

3d. Methods of introducing the vaccine matter into the system.

It might seem reasonable that if the virus is introduced into the system by any method that would guarantee its absorption into the circulation, it would be all that could be desired on the part of the practitioner. To some extent this is the case, but there are reasons why attention should be given to the consid-

eration of this portion of the subject, and that proper care should be enjoined upon those who perform the operation, so that it may be made certain upon their part that absorption has taken place. There is no doubt but that frequently a want of success in obtaining the desired result is charged to a loss of activity in the virus employed, when, in reality, carelessness in the manner of its introduction into the system, has far the most to do in causing the failure.

There are three methods, all of which have been employed to a greater or less extent, in the performance of the operation. Either method is attended with success, and may be selected as the proper one, its selection depending entirely upon the preference of the practitioner. Perhaps scarification is more generally employed in this country than either of the other two, puncture or vesication, although in later years by the invention of a spring vaccinator the method of puncture has become quite popular.

In the act of scarification, a number of scratches are made at the point at which the vesicle is desired. It is best to be careful that these cuts or scratches do not penetrate to such an extent as to cause any considerable flow of blood, as it would be possible to wash away the virus from the absorbents. In many cases, however, even a comparatively large flow of blood does not prevent the absorption of a sufficient amount of the specific matter to cause the vaccine disease.

If quill or ivory slips are used, upon which the virus has been preserved, they should be slightly moistened and lightly rubbed over the scarified surface for a second or two. When tube lymph is employed, it should be blown out upon a clean glass, and conveyed to the arm upon the point of the lancet and applied in the same manner as described for the slips. In the employment of a crust or scab, a portion of its center (all the margins being carefully trimmed away) should be reduced to powder on the slip of glass, with the knife, moistened with water, and applied after the same manner as liquid lymph, being certain that a sufficient quantity is used to insure success. In no case should the dry crust, as has been advised by some, be pressed upon the denuded surface, and allowed to dissolve *in situ*.

When the virus is introduced by puncture, the lancet should be made to penetrate the cuticle in an oblique direction so as to make a slight puncture, reaching the true skin beneath; two or three punctures should be made for each intended vesicle. The lancet used should be charged with either lymph or the liquified crust as each puncture is made. Recently an instrument

has been devised, similar in some respects to the spring lancet, by which a charged needle is pushed into the skin, thus facilitating the operation, and overcoming the fear of the knife, so frequently manifested, especially in children.

The third method spoken of was introduced by Mr. Ellis, of London. Having formed a small blister, the cuticle is raised and the virus placed beneath it. It does not seem that any advantage could be derived from such an operation, and the time, trouble, and discomfort, to both the practitioner and patient, would be considerably greater than if either of the other methods were adopted. If protection from the rubbing of the clothing is the object, a piece of isinglass plaster applied over the point of introduction is all sufficient, and does not in the least interfere with the development of the vesicle. Even this procedure is not necessary, for if the arm is exposed to the air for a few minutes until dry, perfect absorption will be secured.

In this connection, it is well to mention that the selection of the location for the performance of the operation, should be regarded as a matter of some importance. Not that the virus will be more readily absorbed when introduced at one point of the surface than at any other, but because the physician will the more readily decide whether vaccination has been previously performed if the cicatrix is found where it is most frequently located, upon the arm. Prof. Flint takes the correct view when he says: "The situation for the introduction of the vaccine virus, should always be that usually selected, viz: on the arm near the insertion of the deltoid muscle. Uniformity in this respect enables physicians and others to ascertain, without delay or doubt, the fact of a previous vaccination, and to judge of its success by an examination of the cicatrices."

4th. Number of vesicles desirable.

In the instructions issued to the vaccinators in England, the following occurs: "In all ordinary vaccinations, vaccinate by *four or five separate punctures*, so as to produce *four or five separate good-sized vesicles*; or if you vaccinate otherwise than by separate punctures, take special care to secure the production of *four or five separate good-sized vesicles*."

Many writers, and among them Curschmann, perhaps the latest who has written upon the subject, advocates the introduction of virus at many points. According to the above-mentioned author, "from four to six usually suffice for each arm;" others regard the system as thoroughly protected by one insertion as if many had been made; in fact, it is the rule in

this country to vaccinate by only one or two, points of insertion.

In consulting statistics, it seems that a relation certainly exists between the number of cicatrices and the percentage of mortality in cases of small-pox occurring after vaccination. The following table, given by Mr. Simon, and showing the percentage of deaths occurring in nearly 6,000 cases of small-pox contracted after vaccination, arranged with reference to the number of cicatrices borne by each patient, is interesting in connection with this topic:

CASES OF SMALL-POX CLASSIFIED ACCORDING TO THE VACCINATION MARKS OR CICATRICES BORNE BY EACH PATIENT RESPECTIVELY.	NO. OF DEATHS. PER. CENT. IN EACH CLASS RE- SPECTIVELY.
CLASS I. Stated to have been vaccinated, but having <i>no cicatrix</i>	21 $\frac{3}{4}$
CLASS II. Having one vaccine cicatrix.....	7 $\frac{1}{2}$
CLASS III. Having two vaccine cicatrices.....	4 $\frac{1}{8}$
CLASS IV. Having three vaccine cicatrices.....	1 $\frac{3}{4}$
CLASS V. Having four or more vaccine cicatrices.....	3 $\frac{1}{4}$
Unvaccinated.....	35 $\frac{1}{2}$

Prof. Aitken arranges all vaccinated persons into four separate classes, depending upon the number and character of the cicatrices, each class being more or less perfectly protected, as these marks of successful vaccination are found upon the person:

“Class I. Best protected, having more than two *typical* marks.

“Class II. Sufficiently well protected, having two *typical* marks.

“Class III. Moderately protected, having two or more *passable*, or one *typical* mark

“Class IV. Badly protected, having *bad* marks, or having only one *passable* mark.”—[*Science and Practice of Medicine*, Vol. 1, Page 420.

The following is taken from a report made by Mr. Marson, and is based upon 15,000 cases.—[*Reynolds' System of Medicine*, Vol. 1, Page 499.

CLASSIFICATION OF PATIENTS WITH SMALL-POX.	NO. OF DEATHS EACH CLASS.
I. Unvaccinated.....	37.
II. Stated to have been vaccinated, no cicatrix.....	23.57
III. Vaccinated.....	.....
(a) Having one vaccine cicatrix.....	7.73
(b) Having two vaccine cicatrices.....	4.70
(c) Having three vaccine cicatrices.....	1.95
(d) Having four or more vaccine cicatrices.....	0.55
Having well-marked cicatrices.....	2.52
Having badly marked cicatrices.....	8.82
IV. Having previously had small-pox.	19.

Dr. Welch has published a table in his report for 1872, showing the same classification as the foregoing tables, with somewhat different result.

TABLE.

Showing 1,789 cases of small-pox classified according to the number and quality of the vaccine cicatrices borne by each case.

	ADMITT'D.	DIED.	PER CT. OF DEATHS.
Said to have been vaccinated in infancy— <i>no visible cicatrix</i>	140	79	56.42
Vac. in infancy— <i>one good cicatrix</i>	400	41	10.25
“ “ “ <i>fair</i> “	222	36	16.21
“ “ “ <i>poor</i> “	502	143	28.48
Total number showing <i>one</i> cicatrix.....	1,124	220	19.57
Vac. in infancy— <i>two good cicatrices</i> ...	108	12	11.11
“ “ “ <i>fair</i> “ ...	36	3	8.33
“ “ “ <i>poor</i> “ ...	33	7	21.21
Total number showing <i>two</i> cicatrices...	177	22	12.42
Vac. in infancy— <i>three good cicatrices</i> ...	64	7	10.93
“ “ “ <i>fair</i> “	21	2	9.52
“ “ “ <i>poor</i> “	26	7	26.92
Total number showing <i>three</i> cicatrices...	111	16	14.41
Vac. in infancy— <i>four or more good cicatrices</i>	145	13	8.96
Vac. in infancy— <i>four or more fair cicatrices</i>	52	5	9.61
Vac. in infancy— <i>four or more poor cicatrices</i>	40	5	12.5
Total number showing <i>four or more</i> cicatrices	237	23	9.7

In speaking of the various classifications of cicatrices, it will be noticed that they are called, typical, good, fair, passable, bad or poor. It is very important that a knowledge of the distinctive characteristics should be so understood, that the proper classification may be readily made, when any form of cicatrix is under observation. Within a very short time several writers have endeavored to show that a typical cicatrix may be formed after any ulceration as circumscribed in character as is the vaccine vesicle or pustule. This is certainly a mistaken idea, as the vaccine cicatrix when typical of a perfect vaccination can be rarely mistaken for anything else.

Prof. Aitken has fully designated the distinctive appearances of the various forms of cicatrices mentioned in all classifications, and that they may be thoroughly understood, they are here transcribed: "(1) Typical, excellent, perfect, good or first-rate cicatrices are recognized by their circular form, and pale or white appearance. They are somewhat depressed and dotted, indented or foviolated with minute pits or depressions over the base, supposed to indicate the number of compartments in the anatomical structure of the vesicle. In some instances there are radiations from the center. It has been considered that the normal diameter of a cicatrix produced by a single insertion, is one third of an inch; that scars of larger measurement are generally of double or multiple origin.

"(2) 'Fair,' 'passable,' or 'modified,' cicatrices possess the characters of the typical cicatrix, but they are less perfectly expressed, the contour being less regular, and the size just within the average above mentioned. To irregularity of contour, however, it must be remembered that scars resulting from single insertions (as in the ordinary method of puncture), are notably uniform, so that irregularity of contour, when associated with a single puncture for vaccination, indicates that the progress of the vesicle has been irregular; but when the scar results from several contiguous insertions or scratches, no such inference can be made.

"(3) 'Bad cicatrices,' which must be held denoting 'failures,' are such scars as can not be recognized as the product of vaccination, by any circumstance beyond being found near the usual site of the operation. Scars also having a less diameter than *a quarter of an inch* ought to find a place amongst this class; and, generally, all ill-defined, faint, scarcely discernible white patches, especially such as consist of large, flat, ill-defined shiny marks. Fruitless attempts at vaccination may be also recognized by the permanent traces left of the

parallel, or transverse, scratches employed at the operation." [*Science and Practice of Medicine, Vol. I., p. 418.*]

While it is observed by the tables published herewith, that there does exist a relation between the number of the points of insertion and the degree of protection conferred by the operation, still there remains a question whether this increased degree of protection is not obtained at too great a cost in the amount of traumatism observed when as many as from four to six pustules have been produced, as recommended, upon both arms. There is no doubt that the system of the infant is as truly infected by cow-pox disease, by the absorption of the virus at one point of insertion, as though many punctures were made. And certainly the danger of attending traumatic fever is lessened to a great degree. In the daily practice of most physicians in this country there is an antipathy to the multiple mode of procedure, and in many cases it is doubtful whether the consent of parents would be willingly given to the performance of as diffusive an operation as has been mentioned. If such were positively necessary, of course it should in all cases be insisted upon, but it is proven that almost positive protection is given the infant by the formation of one or two pustules, and it is recommended that that number of insertions, and no more, be made in the performance of primary vaccination of infants.

If revaccinations are insisted upon at the times, as stated in the first pages of this monograph, there is no doubt that as perfect protection will be guaranteed through life, as though the advice of the older, and especially the German writers, was explicitly followed.

5th. Signs of successful and unsuccessful vaccination.

Having introduced the virus into the arm, the busy practitioner frequently gives no more attention to the case, relying entirely upon the testimony of those interested as to whether the operation proves a success or otherwise, and frequently takes it for granted that the desired result has been produced if the patient is not presented for a repetition of the procedure. This should not be so. No one is capable of judging as to whether the local or general manifestations are sufficiently distinctive as to warrant the conclusion that the disease is following the usual course of genuine cow-pox, unless thoroughly conversant with the typical form of the disease.

In order that protection may be guaranteed with any degree of certainty, attention should be given by the physician to

the development of the vesicle, with its accompanying phenomena, and the fact demonstrated beyond question that the disease under observation is the genuine, and not the so-called spurious form of vaccinia.

In successful vaccinations no effect is noticed until the last of the second or beginning of the third day after the introduction of the virus. At this time a small hardened point or elevation appears at the site where the puncture was made. A faintly defined ring of a pink or redish color is also noticed surrounding these elevations. This redness gradually increases until, at the end of the fifth day, the cuticle is elevated and forms a distinct vesicle of a whitish color. This vesicle is filled with a clear, thin liquid, called lymph. The day following being the sixth, the vesicle becomes umbilicated, having raised edges and a depressed center; local inflammation becomes manifest in a bright ring or areola surrounding the vesicle. All these phenomena increase until the eighth day, when the vesicle is fully developed, at this time having a pearly, white appearance; sometimes however, being, if mixed with pus, of a yellowish color. In size, the vesicle varies from $\frac{1}{4}$ to $\frac{1}{2}$ of an inch in diameter, and projects considerably above the general surface; on the ninth or tenth day the areola has increased in size and intensity of color, until the circle of inflammation extends an inch or more around the vesicle; sometimes a number of vesicles are found springing from the inflammatory ring, accompanying this angry appearance, the whole sub-cutaneous tissue becomes more or less indurated and painful to the touch, the arm being at the same time enlarged and tumefied. By the tenth day, all the symptoms denoting febrile action are at their height; at this time the neighboring lymphatics frequently become indurated, and it is not unusual to find streakings of red extending toward the shoulder and elbow. On the eleventh day the inflammation usually begins to subside, and two or three concentric rings of redness make their appearance at various distances around the vesicle, swelling and tenderness begin to subside, the vesicle becomes dry and brown, and by the fifteenth day a crust or scab is formed, which, unless removed, will continue to desiccate and completely dry up and fall from the arm on the twenty-first day. Beneath this scab the skin is first observed of a red color and tender to the touch, but gradually whitens, and remains through life the cicatrix which is taken as the exponent in after life of the successfulness of the vaccination.

The foregoing is descriptive of a typical case of successful vaccination, and a patient who has manifested all these phe-

nomena may be considered safe, for a time at least, from the small-pox contagion. The grade of inflammatory action is not in all cases as severe as has been shown in the foregoing description, but in all cases when the protection is considered perfect there should not be any considerable deviation from the manifestations here presented. The first appearance of the vesicle may sometimes be delayed longer than the third day, but after it does begin to form the course of the disease should be as has been described.

If there are any marked alterations from this mode of progression, the name spurious or false cow-pox has been given to the disease so developed. This name is not proper if it is intended to convey the impression that there is another form of disease which resembles cow-pox but is not the true disease. There is no doubt that there are times when the human system will not receive the vaccine poison in a manner that will allow of proper development of the disease, the vesicle simply aborting without creating any constitutional disturbance—this lack of development not depending in the least upon the quality or character of the virus introduced, but entirely upon the general condition of the patient. It does not follow however, that if such a person was exposed to small-pox contagion, that disease would not be as readily contracted as though the attempt had never been made to perform vaccination. The experience of all physicians goes to show that in some cases the vaccine virus must be inserted many times before the desired result is obtained.

It is a most important matter with the physician to understand the differences between true and this so-called false vaccine disease, for in one case protection from small-pox may be insured and in the other there can be no such immunity promised. As the phenomena accompanying the true disease have been fully described, it is not out of place to present the following description of false cow-pox as given by M. Bousquet, in order that a comparison may be instituted between the two :

“ True cow-pox hardly begins to show itself at the end of the third day, but the false is much earlier, and may be seen from the first to the second day after introduction of the virus, a circumstance which from the first constitutes a distinction between the two affections. But this precocity is not by itself sufficient to establish a differential diagnosis. False cow-pox is sometimes so rapid in its course as only to appear that it may disappear ; at other times it shows itself in the form of a small pimple, more appreciable by the eye than by the sense

of touch. This pimple goes on increasing in size till the fourth or fifth day, leaving the physician uncertain as to its future progress, but on the sixth or seventh day, in place of becoming developed, its progress is arrested it grows pale, and dries up. At other times, it advances farther, always preserving in its rapid development a conical and globular shape, which I look upon as an unerring a sign of false cow-pox, as the flattening and central depression of the pock are signs specifically characteristic of the true.

"The false pock is sometimes red and sometimes yellowish. It never assumes the brilliant silvery lustre which distinguishes the prophylactic cow-pock. Though not exactly irregular in shape, it has an ill-defined margin. Some time between the fourth and seventh day—for the false cow-pox has nothing fixed or normal in its course—it becomes yellow, suppurates and dries up."—[*Trousseau's Clinical Medicine, Vol. II, p. 137.*

To this description Trousseau adds: "That false cow-pox is often accompanied, as local symptoms, by inflammatory inductions of the subjacent cellular tissue, disagreeable itching in the affected parts, swelling and pain in the axillary glands; and as general symptoms, by restlessness, headache, and sometimes by fever. There is another kind of false, or, to speak more correctly, of aborted cow-pox. It is met with when the pustules of true cow-pox have their development arrested or impeded by excoriations caused by the scratching of the infant, by the pressure of too tight clothes, or by the irritation of unnecessary handling. Under such circumstances the supuration begins at once, the pustule become, yellow, swells, and its virulent lymph disappears."

When a vaccination is performed, it frequently happens, especially if a long time has elapsed since the primary operation, that the vesicle found presents all the characteristics of a typical vaccination; generally, however, its appearance is more or less modified by the preceding vaccination. In many cases after the introduction of the virus, the arm almost immediately takes on an angry look, the color being greatly heightened, and the swelling and œdema extensive. Such a condition may exist for two or three days, after which it will subside entirely, leaving no scab more than might be formed by the scarification alone. At other times a papule may be noticed with no appearance of a vesicle, the inflammation progressing for four or five days and then rapidly declining. As a rule, the areolar tissue becomes involved to a greater degree in cases of secondary vaccinations, and the febrile disturbances may also be considerable.

In some cases of primary vaccination, it is difficult to determine satisfactorily whether the disease has developed only locally, or has brought the whole system under its influence. During Jenner's time this question was discussed, and Mr. Bryce succeeded in establishing a procedure, whereby, in every case, perfect immunity could be promised after the performance of vaccination. Not relying at all upon the appearance of the vesicle, by reinoculation upon the other arm he became certain that the virus had produced the desired constitutional results, and, therefore had been successfully performed.

A description is here given in the words of the originator of "Bryce's Test," and no doubt if the suggestions therein were more frequently carried out, far less unsuccessful vaccinations would be recorded, "For some time," he says, "after the introduction of the cow-pox inoculation into medical practice, many cases were related in which an eruption of pustules, more or less numerous, was said to take place, similar to what happens in small-pox. While these reports were propagated, and certified to by men who seemed worthy of credit, even although no instance of the kind had come under my own observation, I entertained hopes of so conducting the new inoculation, in every case, as to obtain a certain and well-defined mark of a constitutional affection; for if any eruption of pustules belonged to cow-pox in any case, as a consequence of the peculiar fever or constitutional ailment thereby induced, I thought that one or two pustules might be made to appear in every case. It is well-known that by irritating any part of the skin, by the application of heat, of a stimulating plaster, or various other substances, we can produce a greater number of pustules in small-pox upon that particular part than would have otherwise appeared; and, judging from analogy, I expected that the same thing might have been effected in cow-pox. Such trials I have made; and, although they were conducted with as much anxiety and care to produce pustules as other persons seem to have taken to avoid producing them, yet they have constantly failed. Nay, these trials have now been made under such a variety of circumstances without effect, as to confirm me in the opinion that an eruption of pustules, as a consequence of constitutional affection, does not belong to small-pox.

"Foiled in my attempts to so conduct the inoculation of cow-pox as to produce pustules, I recollected some experiments which had been made with regard to the inoculation of small-pox. It was found, that if the same person was inoculated every day until the fever induced by the first inoculation super-

vened, all the other punctures quickly advanced in their progress; and that, in the course of a day from the time the fever or general affection began, even that puncture which had been last made, perhaps only twenty-four hours before, equalled in maturity the first one made, perhaps eight or nine days before, and from which the fever had arisen.

"In this case, it appears to me evident, and, I think, must be admitted by every person, that even had no other pustules appeared on the body than those occasioned by the repeated inoculations, nay, had there even been no fever observed in consequence of the inoculation, yet as the pustule occasioned by the last puncture had been suddenly accelerated in its progress to maturation, at the time the general or constitutional affection should have appeared, this alone was a sufficient proof of the presence of the variolous action in the system.

"Judging again from analogy, I expected that the same thing, which thus happened in the small-pox inoculation, might also take place in that for the cow-pox; and the unexpected appearance of one or two vesicles upon children that I had inoculated, which vesicles were quite characteristic of the ailment, and the appearance of which I could only account for from a second and accidental inoculation during the course of the disease (as mentioned in page 101), strengthened my hopes. And certainly, if we find in cow-pox, where the inflamed and hard areola does not take place, at least in the regular course of that affection, until the end of the seventh or beginning of the eighth day from inoculation, that a second inoculation, performed for example at the end of the fifth or beginning of the sixth day, is so much accelerated in its progress, about the time the general affection of the system usually takes place, as to have an areola formed within a few hours, or very shortly after the first, and that this areola increases with the first, and again fades at nearly the same time, we must be struck with the similarity, and be forcibly led to draw the conclusions in this case as in the former, respecting the small-pox, viz: that although the inoculated affections had appeared very slight, and no fever had been observed, yet that a certain action had been excited in the constitution. That this was the true constitutional affection of cow-pox, may be judged by the accelerations of the second vesicle to a state of maturity five days before this could have happened, had there been no consentaneous general action or change in the system.

"The truth of this opinion was also soon put to the test of experience, and I now have much satisfaction in declaring that the result appears to answer my most sanguine expectations.

In short, my observations on this point lead me to conclude that in order to obtain the proposed criterion in the greatest perfection, the second inoculation should be performed between thirty-six and forty-eight hours before the areola of the first inoculation begins to appear. This is necessary in order that the secondary affection may have proceeded some length, and that a small vesicle containing virus may have been formed by it before the constitutional action from the first inoculation begins; otherwise no areola, but merely a slight degree of hardness, will take place from the second puncture.

“As, on the one hand, the acceleration of the second inoculation in the manner above mentioned, is to be regarded as a certain mark of a constitutional affection in cow-pox; so, on the other, if it shall be found that no such acceleration takes place, but that the second inoculation proceeds by a slow process through all the stages, and has the duration of a primary affection, it is to be concluded that no constitutional action has taken place from the first insertion of the virus; and when this is the case the second inoculation must be regarded as a primary affection, and a third puncture be made according to the plan laid down for conducting the second inoculation; and thus we may go on until the proper test be obtained, or until we are satisfied that the constitution completely resists the action of cow-pox.”

THIRD.—WHAT CAUSES HAVE PREJUDICED THE PUBLIC AGAINST THE OPERATION OF VACCINATION?

There exists a popular belief that by the operation of vaccination diseases are implanted in the system which remain through life; and although a fatal termination is not dreaded, yet the possibility of impure contamination, and the likelihood that such impurity may be conveyed to the offspring, prevents the ready acquiescence in the performance of the operation, as this fear overcomes any that may exist in relation to even the dreadful scourge of small-pox.

That such belief should be held by any of the medical profession seems totally unaccountable, for it is well known that by proper care, one who performs the operation may be positively certain that no impurity can be thereby conveyed. There are some also who unfortunately practice medicine in the community, although not usually belonging to the regular profession, who either through ignorance, or a desire to impress the public with the idea of the particular advantages to be derived from the extraordinary care they exert in the selection of the

virus, with which to perform the operation, who are very willing to represent that any simple eczematous eruption which may occur, subsequent to vaccination is the result of the employment of impure virus. By reason of such an eruption following the use of *animal* virus, the writer, has within a few months past, been threatened with a suit for damages on account of representations to the family, by an irregular practitioner, that the disease was occasioned by the impure virus used. The eruption was a trivial affair, and attended with no symptoms that required any but the simplest form of treatment. It was, however, sufficient, with the aid of the "medical adviser" to prejudice some persons, who otherwise would have consented to the operation. Thus it comes, that in many cases if the vaccination is accompanied with an undue amount of inflammatory action, or an erysipelatous inflammation supervenes upon the operation, the practitioner is blamed and the virus condemned as impure. Such is also the case when an eczematous eruption appears upon any portion of the body at the time of vaccination or even months afterwards. It is almost impossible to remove doubts from the minds of many people, even those of education, when such sequellæ are observed, and frequently the confidence which has existed between themselves and the physician, is thereby seriously impaired.

It is the purpose in this division of the subject to present facts as they have thus far been demonstrated, in regard to the danger which actually exists of conveying diseases of various forms through the medium of vaccination.

Dr. Fox states that there is a form of Impetigo which has been noticed as frequently following vaccination; this disease of the skin is known as *impetigo contagiosa*, and although it may sometimes have an origin other than in the vaccine virus, yet it is believed that it has also been implanted in the operation. Dr. Henry G. Piffard in the New York Medical Journal, July 1872, gives several cases which go to prove that vaccination does act in some cases as a causative agency, and that this disease may thus originate. "A child was vaccinated about two years ago by a friend and former pupil. During the second or third week thereafter a vesico-pustular eruption appeared upon it, and shortly after upon another child in the family. The parents, much alarmed, discharged the physician who had vaccinated the child, and carried the children to another practitioner, who sent them to me. The diagnosis of *impetigo contagiosa* was not made at the time; in fact, we expressed ourselves as unable to speak definitely concerning the nature of the affec-

tion. The cases were not eczema or ordinary impetigo, and we are now satisfied that they were examples of the affection under consideration.

"A few months subsequently I vaccinated a young lady upon the calf of the right leg, with a crust taken from a perfectly healthy infant. During the third week after the vaccination she returned, and exhibited several vesicles and scabs of impetigo contagiosa upon the same leg and thigh. This case was cured in a few days, to the great delight of the young lady, and of her mother, who feared that some 'unclean' disease had been inoculated with the vaccine." "A child, eight months of age, was vaccinated about the 1st of last October. During the latter part of the month an eruption of the same description appeared upon the arms and the upper part of the body. This case was presented to the New York Dermatological Society at its December meeting.

"Through the kindness of Dr. Henry F. Walker, physician to the Nursery and Child's Hospital, I was enabled to see, on the 30th of May just passed, four children in one of the wards of that institution, upon whom there had recently appeared an eruption presenting the features of impetigo contagiosa. The cases occurred in the following order: J. H., about four months of age, had been vaccinated by the house physician some four or five weeks previous to the date of my visit. Two or three weeks later the eruption appeared, followed by a similar eruption, upon H. S., aged four months, which was first noticed May 23d, followed by a similar eruption May 26th, upon J. D., aged thirteen months; and May 28th, upon C. G., aged one year."

In regard to the appearances of this form of disease Dr. Piffard says: "Impetigo contagiosa, according to Fox, frequently commences by the appearance of constitutional symptoms of a pyrexial character, varying in severity in different cases. In two or three days one or more small vesicles appear, followed from time to time by others. The vesicles gradually enlarge in size, and two or three days later dry into thin, light yellowish or straw-colored scabs or crusts. The vesicles and crusts may be indefinite in number, and successive eruptions may prolong the disease for months. During the progress of the affection, associates, adults as well as children, may become the subjects of a similar eruption. Inoculation with the fluid contained in the vesicles will produce similar lesions, both upon those who are affected with the disease, and upon others, as has been experimentally determined by Fox and Taylor."

From experiments made with vaccine crusts Dr. Piffard supposes that this impetigo originates in a peculiar form of vegetation observed in the dissolved matter, which is not found elsewhere, and proposes to give these fungoid bodies a distinctive name, *Leptothrix vaccinalis*, depending upon their appearance and habitat. He thus presents the results of his experimentation: "The remarkable fact that impetigo contagiosa does undoubtedly, in a very large number of instances, develop itself as a sequela of vaccination, as exhibited in the recorded experience of Fox and others, as well as of myself, has led me for some time to suspect that there existed some closer connection between the two than mere coincidence. The coincidences were too frequent to be explained by the doctrine of chance. In fact, at the meeting of the Dermatological Society referred to, such connection was suggested by me, a view, however, which did not meet with favor. My subsequent experience tended to strengthen the conviction of the possibility of vaccinia standing in a causative relation to impetigo contagiosa, and induced me to make a careful microscopical examination of vaccine matter—for a plentiful supply of which I am under obligation to the vaccine establishment of the New York Dispensary, under the charge of Dr. F. P. Foster; to Dr. Darkin, of the Demilt Dispensary, and to their friends. Fresh lymph, in tubes, from Dr. Foster, was carefully examined with amplifying powers of from 500 to 1,500 diameters. Nothing of an organized nature appeared upon examination, with the exception of minute bodies, by Beale termed 'bioplasts,' and by Chauveau 'vaccinads.' These bodies are supposed by both, and in fact pretty certainly determined by the latter gentleman, to be the active agent of vaccinia, and consequently a necessary and normal constituent of pure lymph. The result, as might have been anticipated, being negative, attention was directed to the examination of vaccine crusts.

"Portions of vaccine crusts were placed in small phials and clean test-tubes, and a little more than covered with solutions of caustic soda, potassa, or ammonia, of varying strengths. After the lapse of from one to twenty-four hours, depending upon the strength of the caustic solution employed, more or less complete liquefaction of the crusts was found to have taken place. A drop of this fluid was removed from the phial, by pouring it upon the slide, and examined microscopically, with the same amplifying powers employed in examination of lymph. Upward of twenty vaccine crusts were examined, and in every instance fungoid bodies, similar to those observed in

impetigo contagiosa, were found, with the sole difference that in vaccine crusts the fungus was more abundant and more luxuriant than in the majority of crusts derived from the other affection."

It will be observed that in pure *lymph* no traces of these peculiar fungoid formations could be observed, and that it was in the crusts of vaccine virus and of the *impetigo* that they were discovered. Might it not be concluded that their origin was in some fermentative change taking place in the organic constituents of the crusts themselves, and that the same result might be noticed in scales removed from the various forms of *eczema*, as well as this one of *impetigo*. The fact that no such forms were observed in the clear lymph would certainly show that they were entirely foreign to the virus in its perfectly pure condition. It would certainly be valuable in this connection to know whether any cases of *impetigo* resulted from the use of lymph, or whether the dissolved crust was invariably employed, when this disease occurred as a sequella. It has been the experience of the writer to observe many cases of eruption following vaccination, and some might be classified as belonging to the form of *impetigo* mentioned by Dr. Piffard, but certainly in most cases they in no wise differ from the common forms of *eczema*. That such cases of eruption do occur, following vaccination, there is no doubt, but it is certainly difficult to trace their origin to the vaccine virus employed. It is far easier to suppose that the disease results from a predisposition upon the part of the children to a development of eruptive skin affections following a disease of an acute inflammatory nature. This is known to be eminently the case with measles and scarlet fever. Is it not therefore probable, that in a certain number of cases, where the inflammatory action has been high, and the general system has been brought fully under the influence of the vaccine disease, that such results may be observed.

There are many authorities who emphatically deny the possibility of conveying any form of disease through the medium of the vaccine lymph. At the Childrens' Hospital, Paris, M. Taupin vaccinated a large number of children with virus taken from subjects affected with itch, scarlatina, measles, varicella, varioloid and variola, rachitis, scrofula, tubercles, chronic eruptions of the scalp, darts, etc., without communicating to the patient any of these affections, either those of an acknowledged contagious or non-contagious nature.—[*Meigs and Pepper*, page 168.

Dr. Gregory mentions the case of a child who had been exposed to the infection of small-pox and was afterwards vac-

culated. Both diseases were developed. A lancet charged with lymph from the vaccine vesicle produced cow-pox; another lancet from a *variolous* pustule, *formed within* the vaccine areola communicated small-pox.—(*Lecture on Eruptive Fevers* page 270.) This same fact is observed in many other cases, and shows that it is impossible to obtain more than one form of virus from a true cow-pox vesicle. A late writer mentions that “to show that two poisons can not be present in a true Jennerian vesicle, lymph may be taken from a vesicle developed in a person who has been vaccinated too late to prevent the development of small-pox, and used without the slightest hesitancy for vaccinating another child.—[*Edinburgh Medical Journal*, November, 1871.]

Some years ago, John Simpson, F. R. S., Medical Officer of the London Board of Health, requested an answer to the following questions, from some of the eminent medical men of Europe: “Have you any reason to believe or suppose (a) that lymph from a true Jennerian vesicle has ever been a vehicle of syphilitic, scrofulous, or other constitutional infection to vaccinated persons; (b) or that unintentionally inoculation with some other disease instead of the proposed vaccination, has occurred in the hands of a duly educated medical practitioner?”

Prof. Hebra, of Vienna, among many others, answered the question in the following manner:

“This widely grasping question requires several separate answers, because queries are made:

1. “*Whether the lymph of a vaccine vesicle may, besides its peculiar virus, contain another infectious principle, e. g., that of syphilis?*”

2. “*Whether constitutional non-infecting diseases, as, for instance, scrofula, may be transmitted by the inoculation of cow-pox matter?*”

3. “*Whether a vaccine vesicle possesses such characters that it may easily be distinguished from other similar vesicles, blebs, or pustules?*”

His answers to these three queries may be briefly stated as follows:

(1). “The transmissible infectious principles which have hitherto been recognized, by means of inoculation, are the syphilitic virus, contained in the pus of a chancre, and the virus contained in the cowpox vesicle, and the small-pox pustule. The question, therefore, is simply whether these morbid poisons have ever been mixed? Whether inoculations have ever taken place with such a mixture? And what results have been obtained from such an operation? The answers to these

questions are. Inoculation with secretions of this kind, viz: Containing, as it were, several special poisons, either produced no effect at all, or only generated a chancre, by inoculating a mixture of pus from chancre and vaccine pus; and only cow-pox, by inoculating a mixture of vaccine lymph and blenorrhagic matter. Hence, one morbid state only was produced, either cow-pox or syphilis; the latter circumstance being a proof that both poisons are not *simultaneously* transmissible.

This opinion is supported by the experience of Heim, Ricord, Bousquet, Taupin, Landoury, Friendenger, and others.

(2). "We know from experiments made for the purpose (Heim), and from accidental inoculation, that regardless of the quality of vaccine lymph, the latter may be inoculated from syphilitic upon sound individuals; and, on the other hand, from sound subjects upon such as are under the influence of systematic syphilis, without propagating syphilis along with the cow-pox.

"What has been proved of syphilis must, *a fortiori* hold good as regards other constitutional morbid states, as direct inoculation with secretions peculiar to these diseases, have always yielded a negative result.

3. "Every morbid appearance on the cutaneous envelope has its own peculiar characters, by which it may be distinguished from other similar phenomena. The vaccine vesicles presents in like manner sufficiently striking peculiarities as to form, size, number, locality, and particularly as regards its course, to enable the observer easily to establish a distinction between the same and other vesicular, bullar, or pustular eruptions."—[*Parliamentary Reports*, 1857.

Although it has not been shown that two forms of inoculable virus have ever existed together in a typical vaccine vesicle, yet it is well-known that syphilis has been transmitted from one person to another, by the operation of vaccination. Fortunately these cases are extremely rare, as compared with the immense number of vaccinations performed. For, as an able writer (Curschmann) says, "could the opponents of vaccination show that this occurs with any degree of frequency, or is with difficulty prevented, vaccination would thereby receive a severe blow."

Many instances might be produced to show that such a danger actually exists, and that the popular fear of impure inoculation has foundation in fact. It is, therefore, very necessary for the welfare of humanity that all should be made acquainted with the exact truth in regard to the danger of such inoculation, and also the ready means at command to obviate the possibility of such infection.

Trousseau fully considers this question in his Clinical Lectures to students, and concludes that syphilis may be transmitted in vaccination. "But, gentlemen," he says, "there is a point to which I desire to call your special attention to-day: It is *never to vaccinate with lymph taken from one under the influence of syphilitic diathesis*. The transmission of the great-pox by vaccination is a fact which now seems to have been demonstrated. Since the beginning of this century, and particularly in later years, cases of this kind have been recorded both in France and in other foreign countries; to them I can add one which you have seen in the Clinical wards, and which I shall now briefly recall to your recollection:

"The patient, a young woman, eighteen years of age, came into the "Hotel Dieu" for a uterine affection. As we had at the time some cases of small-pox, I recommended that she should have herself vaccinated. The lymph was taken from a child apparently in perfect health, and from the same lymph four infants in the nursery ward were also vaccinated. Cow-pox was regularly developed in the children, and during their residence in the hospital nothing anomalous was noticed, but unfortunately when they left we lost sight of them. The young woman had false cow-pox; on the day after vaccination the punctures became salient; they were surrounded by an inflamed areola, and accompanied with great itching of the skin; in four or five days no trace of puncture remained. The patient then left us, but it was agreed that she should return once a fortnight to follow out the treatment of the uterine affection. On her first return, twenty-three days after vaccination, she drew attention to the punctures on both arms; two of those on the left arm seemed to have taken. I observed that the pustules were ecthyma. At her next visit, a fortnight later, the pustules of ecthyma were observed to have become transformed into scabs of rupia, indurated at the base; in the axilla, we found some of the lymphatic glands in a state of indolent turgescence. Finally, an eruption of roseola clearly showed that the woman was under the influence of syphilitic poisoning, and that the starting point of the poison was incontestably the vaccination pustules."

M. Ricord, who also observed this case, confirmed the diagnosis of Trousseau, and while he does not deny the possibility of propagating syphilis by means of vaccination, still he would be careful to consider the facts connected with every such case. "It is necessary," said he "to distrust the evidence of our senses. It is only by taking into account the obscurity which must necessarily surround a pathogenic interpretation of an

usually retrospective character, and carefully guarding against the errors that a superficial observation may give rise to, that we can hope to discover the solution of so important and intricate a problem. We have now entered upon a period of reaction against hitherto accepted doctrines, and if we do not take care, we will almost be inclined to pronounce a man affected with syphilis if he has ventured without an umbrella in some of the less reputable streets of the Capital."

The case reported by M. Trousseau, as above related, would be much more conclusive, as demonstrating that the syphilitic disease had been conveyed by the vaccination, if it had been continuously under observation; the possibility of receiving the virus during the fortnight in which the patient was absent from the hospital, detracts somewhat from its value as a conclusive demonstration of vaccine syphilitic inoculation. But, fortunately, other cases have been recorded which are not open to this objection; fortunately, because if such a possibility exists, the profession and the public should understand the fact, and know how to guard against it. "Gentlemen," says Trousseau, "you know how many questions have been recently raised in relation to cases of this kind. The subject is one of grave importance, and its discussion is not yet closed. If some physicians still doubt the possibility of syphilis being communicated in vaccination, the majority are open to the logic of facts, and remain on the alert. But among those who constitute this majority, what diversity of opinion exists. Some hold that syphilis is transmissible and inoculable through the medium of the vaccine virus, others absolving the vaccine virus from all blame, hold the syphilitic virus passes with the blood which has accidentally been drawn in taking the lymph from the pock. I shall not stop to discuss the two classes of facts by which the views are supported, as my own experience is insufficient to solve the difficulty. The fact which I wish to impress upon you is this, that syphilis has in numerous cases been transmitted in vaccination."—[*Trousseau's Clinical Lectures*, vol. 2, page 124.]

During the Spring of 1861, an unquestionable outbreak of vaccinal syphilis occurred in the valley of Rivalta, Piedmont. The Italian government appointed Dr. Pacchiotti, of Turin, to report upon the attack. The following account, as published by him, is taken from *Erichsens Surgery*. "In May, 1861, an apparently healthy child, named Chiabrera, was vaccinated at Rivalta, with lymph sent from Aquiri for the purpose. Ten days after this vaccination, on June 7th, forty-six healthy children were vaccinated at one sitting from this child. Again, on

the 12th of June, seventeen other healthy children were vaccinated from one of the forty-six. Thirty-nine of the first series of forty-six, and seven of the second series of seventeen, received syphilis with the vaccine disease. Making a total of forty-six out of sixty-three children in a mountain village, simultaneously inoculated with syphilis. Some months elapsed before the vaccination was suspected to have been the source of the children's bad health. By the 7th of October, when attention was drawn to this spreading disease, six of the forty-six of the syphilized children had died, without receiving any treatment; fourteen were recovering, and three were in a precarious condition. Twenty-three were dispersed throughout the country, and their condition was unknown until further researches traced them out. In addition to the children, twenty women suckling them were inoculated with syphilis from the children. Through the mothers, the disease had reached some of the husbands, and even the elder children of the different families."

It was shown that the infant from whom the virus had been taken for the first series of vaccinations, was inoculated with syphilis by a wet nurse who was caring for it, and who was proven to have been affected with that disease.

The committee, however, who were appointed to examine into the matter, did not express a decided opinion that the syphilis was dependent upon the vaccination, but considered that further investigation was necessary. It seems difficult at the present time to understand why there should have been any uncertainty in the minds of these examiners, but when it is remembered that this was the first instance when such an extensive spread of the disease had been noticed, and that the attention of the profession had scarcely been given to isolated cases of vaccinal syphilis, it can not be considered that a jury of medical men would be otherwise than conservative in endorsing any opinion, which, being made public, would tend to throw disfavor upon such eminently useful a procedure as vaccination. M. Jacoud, in a paper published in the "*Gazette Hebdomadaire*," says, "these gentlemen were both prudent and wise. Before admitting that syphilis in this instance was transmitted with the vaccine matter, many difficulties and obscurities have to be cleared away; it would further be necessary to solve several important questions which at present it appears impossible to reply to. For our own part, an attentive perusal of the documents of the case has led us to the same conclusion as Dr. Albestetti, who exonerates from all blame the vaccinations in question. The events of Rivalta

present to our view two conspicuous but wholly distinct facts, viz: the vaccination of the infants and the subsequent appearances of syphilis in certain of their number. It is granted that these two orders of facts occurred in succession, but for the present we are not prepared to go any further and to argue, *post hoc, ergo propter hoc*; the coincidence is obvious, not so the inference of causalty. Whatever interpretation be adopted as to these facts, they convey a useful caution, and illustrate in an eloquent manner the necessity of taking into account the manifold elements in the etiological history of vaccinal syphilis and the extreme reserve required of the physician in cases of this description." "This view," said M. Ricord, "is in such perfect harmony with mine that I have nothing to add to M. Jacoud's remarks. Let us admit and carefully inquire into these cases, and let us guard against any predetermined notions on the subject; but as to the interpretation offered, let it be received with an amount of hesitation and doubt, increased by the obvious fact that if ever the transmission of syphilis with vaccine lymph is clearly demonstrated, vaccination must be altogether discontinued, for, in the present state of science, we are in possession of no criterion which may permit the conscientious practitioner to assert that the lymph he inoculates is perfectly free from admixture with blood tainted by syphilis."—[*A. N. Bell. M. D., New York State Medical Society Reports*, 1864.

The occurrence of the Rivalta outbreak of syphilis created quite an excitement, however, in the medical world, and medical societies discussed the question fully, and endeavored to understand the truth in regard to the possibility of transmission of the disease, from one patient to another, by the means of vaccination. During a discussion in the Paris Academy of Medicine, in the years 1864 and 1865, M. Depaul and Bovier demonstrated the relative frequency of such transmission, and showed that vaccination performed with lymph derived from a syphilitic child may sometimes prove the means of inoculating very many individuals. "Thus," says Trousseau, "in 1856, at Lupara, in the Neapolitan territory, Dr. Maroni vaccinated in the beginning of November a certain number of children with lymph in tubes which came from Campo Basso; it was slightly colored with blood, though as clear and transparent as usual. The first child vaccinated with this lymph was Philomena Listori, aged eight months, and from her the others were vaccinated, of whom besides Philomena Listori, twenty-two, being nearly the entire number vaccinated, took syphilis. These children were born of healthy parents, and all had from their

births to the date of vaccination, been free from venereal symptoms. In most the vaccination took effect on the first trial; but in some the operation had to be repeated. The vaccinal pock was followed by characteristic venereal ulcerations, accompanied by swelling of the axillary glands. Then, a little sooner in some and a little later in others, but in the majority about the middle of January, 1857, there appeared eruptions of roseola, impetigo, syphilitic papules, and even pemphigus; these eruptions were soon succeeded by mucinous scabs on the lips, the interior of the mouth, on the parts around the anus, on the vulva, and on the scrotum, with consecutive enlargement of the posterior, cervical, and inguinal glands, loss of flesh, and a disturbance of the general health proportionate to the severity of the case. The mothers, most of whom suckled their infants, contracted syphilis from them. A series of venereal symptoms at first local, and which Dr. Maroni has well described, manifested themselves in these unfortunates. Some of them communicated the disease to their husbands. From fathers and mothers to other members of the family, to children under puberty of both sexes, and sometimes to entire families. Almost all the women who became pregnant miscarried, bringing forth syphilitic infants, or dead fœtuses presenting in some cases traces of syphilis. Most of the patients were cured by specific treatment; there was, however, great tendency to relapses; and in some cases two years and a half had elapsed before the disease was eradicated. Some of the infants died, and several of the adults were in jeopardy. Dr. Maroni had taken lymph from the first series he vaccinated for the purpose of vaccinating others. Eleven of this second series contracted syphilis like the first, and communicated it to their mothers, who gave it to eleven nurslings who had not been vaccinated. Some of the women gave the disease to their husbands, and all the young girls were also affected through their contact with the nurses and children. It appears, therefore, that at Lupara thirty-four children were inoculated with syphilis in being vaccinated; and that a greater number of individuals of different ages were directly or indirectly contaminated by these children. At Rivalta there were eighty victims.

“The details now laid before you are given by M. Bouvier. I have now to add, on the authority of M. Depaul, the history of forty infants contaminated with syphilis out of forty-six vaccinated in 1821. According to the report of M. Cerioli, there were thus from four original cases 155 children directly infected with syphilis by vaccination, and there were others

secondarily infected through them, bringing up to 300 the total number of syphilitic contaminations. I can not, therefore, too earnestly recommend you to examine with the greatest possible minuteness the subject from which you take the lymph for your vaccinations." (*Trousseau's Clinical Lectures*).

While it is apparent from the number of reported cases of syphilitic inoculation, that beyond any doubt there is a possibility of its conveyance by vaccination, still all the cases which occur subsequent to the performance of that operation, while they appear to be dependent upon the introduction of the syphilitic poison at the time, are in reality cases in which syphilis pre-existing in the system has been developed by the vaccination. Dr. Tilbury Fox, whilst he does not deny that syphilis may be conveyed in the vaccination, "At the same time," he says, "I am quite sure that very many cases to which this designation is applied are in reality only instances of latent hereditary syphilis excited by the vaccination, and in which the vaccination cannot in any way be fairly blamed for the occurrence of the syphilis. The cases which simulate true vaccinal syphilis are, however, often very successful counterfeits; and a difficulty in disproving that the vaccination itself conveys the syphilitic poison to the attacked arises often-times from the inability to get at any history of syphilis in the parent or parents. The latter naturally try to shift upon vaccination the blame which they should bear themselves."

An essay upon vaccinal syphilis was read in the Amphitheater of the Sorbonne, Paris, in July, 1869, by Dr. G. Lanoix, Chief of the Service des Vaccinations of the Hospitals of Paris, which is as valuable, perhaps, as any other contribution that has been made to the literature of the subject. The essay was published in "*La Tribune Medicale*," a portion of which has been translated and published in this country. The writer demonstrates conclusively that syphilis may be communicated through the medium of vaccination, and believes that there are two forms of vaccinal syphilis.

"In my opinion, gentlemen," he says, "there are two species of vaccinal syphilis, and I am, I believe, the first to establish this division in a precise manner.

"These two varieties are, viz.;

1st. "Evoked vaccinal syphilis.

2nd. "Inoculated vaccinal syphilis.

"Each has its distinct characteristics and distinct source, which enables us to establish its different diagnosis.

"In the evoked vaccinal syphilis one single case may be produced in a large number of vaccinations effected on the same

day. The first thing that takes place is *the transformation in situ of the vaccinal pustule into a pseudo-chancere on from the twelfth to the fifteenth day*: immediately thereafter, and in rapid succession, all the other symptoms of syphilis develop themselves.

"When inquiries are made as to the source of vaccine, the child furnishing it is said to be healthy. But if the investigation is followed up as to the health of the parents, it is found that one or the other has been syphilitic, and sometimes also that the vaccinated child has had syphilitic symptoms at the time of its birth, but which have since disappeared. In inoculated vaccinal syphilis, on the contrary, when several persons are vaccinated on the same day, all or almost all are affected at the same time, with all or almost all the vaccine follows its regular course; it may even reach so far as cicatrization, but then one or more of these cicatrices will break out in from the twenty-fifth to the thirtieth day into a pimple or papula, the starting point of an indurated chancre. This specific ulceration heals slowly, and is accompanied by an indolent ganglionic engorgement, and tardily, say in one and a half months later, the secondary symptoms of syphilis appear. Should the source of this unfortunate development be followed up, it is found that, as in the above cases mentioned, the child who supplied the vaccine was evidently syphilitic, while those who were vaccinated were perfectly healthy before the operation, and belonged to healthy parents."

The same writer says in relation to the occurrence of vaccinal syphilis, that there are numerous and well known cases reported by various authorities, but he does not take the time or space to present any but those which he witnessed himself at the Academy of Medicine, Paris. The following very interesting case is reported by him.

"On the 12th of November, 1868, having called at the St Louis Hospital, Paris, I learned casually from M. Hardy that on the preceding day he had observed a case of vaccinal syphilis in an adult who had been vaccinated at the Academy several months previously.

"Thinking that this might be a new case of epidemic vaccinal syphilis I resolved to make personal inquiries, and I was at last enabled to ascertain the precise day on which this person had been vaccinated at the Academy; it was on the 19th of August preceding; on that same day ten children and thirty three soldiers had been vaccinated.

"Continuing my researches, I ascertained the names of the two children from whom the virus had been obtained; their

names were Conrad and Rousselot. A few soldiers only had been vaccinated from Rousselot; Conrad, on the contrary, had furnished most of the vaccine used on that day. On the day I made my inquiries, the 13th of November, nearly three months subsequent to the vaccinations, the child Rousselot was in perfect health. As to the other child, it was dead; its death had occurred two days after having supplied his virus at the Academy.

“In a few words here is the narrative of its life;

“Born of healthy parents and in good health, it was sent from Paris to a village in the Department of the Basses Pyrénées, and confided to a wet nurse. This woman’s loose conduct was well known in the place; under her care the child soon wasted away; its body was covered with ulcers; and after a few months it became so diseased that the Mayor of the place wrote to the child’s parents, stating that it had caught the disease from its nurse, and that the child, being in danger of its life, had better be taken away at once. The mother immediately started, and found her child even worse than she expected; it was so emaciated and weak that she expected it to die in her arms; the genital parts and vicinity of the anus were covered with ulcerations and maculae. She returned to Paris with her child, and in a few weeks, under good care, the child appeared much better, and she took it to the Academy for vaccination. This was on the 12th of August; on the 19th she took it back; the vaccinal pustules were found to be regularly developed; from the pustules was taken the vaccine for that day’s authorized vaccinations; on the 21st the child died of colliquative diarrhoea.

“The unfortunate mother felt so convinced that the child had received the contagious malady from its nurse, that the first thing she asked me when I called upon her to question her was whether her poor child had given the disease to any one.

“Having thus ascertained where the vaccine had come from, I made it my first duty, to seek out those who had been vaccinated. I will not detain you with all the details of this long and painful search for several days though Paris and its suburbs; it will suffice, I think, to say that I succeeded in finding all the subjects of that day’s vaccination. I reported to Dr. Depaul my sad discoveries, and he accompanied me to see what I had seen. Of the ten (10) children vaccinated on the 19th of August, two (2) had already died before the 14th of November; the others were all syphilitic. You may believe, gentlemen, that I did not rely upon my own judgment uncorroborated; I submitted my diagnosis to such masters as Messrs Bouchut and Ricord, who entirely confirmed it.”

Following this account, he relates the history of three of these cases, which though interesting, cannot be produced here for want of space; it is sufficient to know, however, that they were well developed cases of syphilis. In drawing his account to a close, Dr. Lanoix says. "Such are some of the facts; the others were all similar. If any one doubts, gentlemen, I wish he had been with me on that sad pilgrimage through the homes where vaccinal syphilis had left its blighting trail; he would have been convinced."

TO BE CONTINUED.

Translations.

By H. ILLOWY, M. D.

Conium in Dysmenorrhœa.

The physician called to a woman whose menstruation is painful, after having listened with compassion to the pathetic recital of the tortures experienced at the last epoch, and at the preceding ones, finds himself in the end very much embarrassed; besides, the period will soon return, and it is necessary to do something quickly. According to the inspiration of the moment, according to the symptoms of anæmia or congestion, the physician has recourse to the whole series of prescriptions contained in the formulary, that hackneyed guide of the physician taken unawares. A sort of half success sometimes crowns his efforts. But we must not deceive ourselves, the next return will present itself under as bad conditions, for all the emenagogues from chloroform, apiol, to aloes, mugwort and their analogues—all, we say, may possibly have an immediate, more or less, sensible effect upon the organs concerned, but no one has modified the organs in a manner any way durable.

I, like others, have struggled with the means above indicated against this infirmity of so large a number of women, and I was as much perplexed by the ephemeral success, as by the complete insuccess, when, accidentally, I read the beautiful work of MM. Damouret and Pelvet upon conium and its alkaloids.

I resolved to experiment with conium in such cases of dysmenorrhœa as seemed to me to be due to congestion or anæmia, not by prescribing it a few days before, or during the continuance of the courses, but having the patient take it for a whole month.

For this purpose, in plethoric woman, I prescribed pills, containing, besides the extract of conium, some calming agent like hyosciamus or belladonna. For the anæmic I directed iron, and as there might be either anorexia or constipation, the extract of quassia or hyosciamus in the following proportions:

R	Extract Conii,	2.50 grammes.
	Extract Quassia,	4. grammes.
	or, Extract Hyosciam,	.60 grammes.

M — Make 100 pills—4 per day.

As to the ferruginous preparations, I directed them to take every day for a whole month three teaspoonfuls of the solution of phosphate of iron of Leras, and the following month 20 centigrammes per day of the oxalate of iron. Where no indication for iron existed I prescribed the conium and quassia, or hyosciam, or belladonna, according to the case, but always so that the patient took 10 centigrammes of the extract of conium daily.

I am but little disappointed by this procedure, and it happens but rarely that I can not congratulate myself upon a good result from the first month on.

I continue this treatment for three or four months, and this the more easily as the patient, encouraged by success, becomes persevering, and I doubt if any of the physicians who have so ardently recommended other agents have ever had the same measure of success as I have until now had.

It would be indeed interesting to know if we are better prepared than before against this so frequent and obstinate trouble. It is for this reason that I call the serious attention of my colleagues to this point.—[*Dr. Dusart, in Trib. Medical.*]

A Simple Means of Arresting Obstinate Epistaxis, Rebellious to All Treatment.

An abundant epistaxis resisted all the means usually resorted to for arresting such hemorrhages—mustard foot-baths, cold, ice to the nucha, plugging of the nasal orifices, elevation of the arms, injection of the perchloride of iron, as practiced by my friend M. Crequy, etc. If the patient be not already enfeebled, fainting spells will soon come on if the hemorrhage continue. What is to be done? A simple means has frequently succeeded in my hands. A light emetic, quickly administered, soon provokes nausea, then vomiting, and the hemorrhage is inconspicuously arrested.

This plan of treatment has proved very successful this summer during the great heats.—[*Trib. Medical, Dr. G.*]

Proceedings of Societies.

CINCINNATI MEDICAL SOCIETY.

The Society met January 11, 1876, Dr. Comegys in the chair.

Prof. Hough then read the following paper on Reduction of Dislocations:

In every dislocation and its reduction there are involved certain mechanical principles and relations of the parts involved, that make some *one* process of treatment better than any other. What that one process is depends upon the conditions involved in each particular variety of any given luxation. While in some one dislocation there may be involved a certain principle and relation of parts making a given process of treatment *necessarily* better than any other, a different method may be clearly indicated for a different case or class of cases. This may seem an unnecessary statement of a truth almost self-evident, and yet there are cases in which the point just mentioned is disregarded. The object of this short paper is to call attention to a generally practiced example.

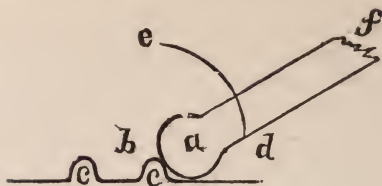
In those very common dislocations of the shoulder-joint where the head of the humerus has been forced downward into the axilla, we have not less than four or five different authorized treatments! It is at least safe to say that these can not *all* be best. In fact, we venture to go further than this, and say that not one of them is fully in accordance with the mechanical conditions involved. Without reviewing these different methods individually and fully, we may mention that in two of them, frequently followed, the heel or the knee of the surgeon is made a fulcrum by which the humerus becomes a lever of the *first kind* with which the head of the bone is, at unnecessary expense of pain and danger, "pried" into place.

The mechanism involved is to a great degree the same whether the heel or the knee be made the fulcrum, so that both methods may be considered together, if we bear in mind that where the knee is made the fulcrum, more reliance is placed upon leverage and less upon extension; while in the use of the heel, less leverage and more extension is used. Both methods are subject to the following objections:

1. The motion imparted to the short arm of the lever *i. e.* to the head of the humerus, acts upon and tends to displace the scapula, and thereby opposes, in some degree, the reduction sought.
- 2 The friction that opposes the slipping of the parts into their proper relations, is increased by the increased pressure that the leverage creates.
3. The resistance of the ligamentous attachments is increased by reason of an increase of tension that some of them sustain.
4. The re-action of the muscles increases the resistance still more, on account of the first objection.
5. The reduction requires an unnecessary amount of force.
6. The operation produces an unnecessary amount of pain.
7. The danger of fracture of the humerus is greater than it need be.

It is needless to dwell upon these objections if we can suggest a better mode of treatment, to which they are not applicable.

The mechanism of the treatment I have to offer may be best understood by reference to the annexed ideal diagram:



a represents the head of the displaced bone, *b* the glenoid cavity, and *cc* the rim of the cavity. If now it be desired to place *a* in its proper place, *b*, it is plain that the most rational attempt, where much resistance is involved, would be to convert the bone *a f* into a lever of the second kind, by rolling the head *a* over the rim *c* into its cavity *b*. This will, of course, involve a swing of the bone in the direction from *d* to *e*. It is obvious that this motion of the bone is *just the reverse* of what is directed in the methods to which we have taken exceptions; that is, in the old methods the head of the bone is compelled to *slip* into place, while the swing of the bone tends to roll it *away* from the cavity instead of towards it. In other words, in the method I propose, the point of contact of *a* and *c*, assisted by the friction, becomes the fulcrum, while the humerus becomes a lever of the second kind, as before stated, to which the power is applied at two points, that is, at the elbow, and also by the heel in the axilla, while at the same time the arm is slowly and carefully elevated. While this is being done, the rolling of the head of the bone into its place is assisted by a moderate extension by the hand of the surgeon, whose foot in the axilla serves both as a means of counter-extension, and also as a power acting transversely, that is, in the direction from *d* toward *e*. When thus manouvered, the head of the bone rides over the rim of the glenoid cavity, in just the same manner as the wheel of a barrow is pushed over an obstacle in its way, and the reduction is affected with the least possible outlay of force, and against the smallest possible resistance.

In illustration of this method I have but a single case to present:

Mr. P—, in driving home from Dayton was thrown from his wagon, and falling upon the shoulder, suffered what he believed to be a dislocation. The accident happening near Centreville, two physicians of that place were applied to for relief. According to the patient's statements, they gave it as their opinion that the humerus was dislocated downward, and tried for "about two hours" to effect a reduction, but without success. The patient then came on a distance of seven or eight miles, and presented himself at my office some three or four hours after the injury. The symptoms were plainly those of dislocation of the head of the humerus into the axilla, viz: a flattened shoulder, a hollow under the acromion, a lengthened arm, and the head of the bone plainly felt in the axilla. The elbow also stood off from the body, and Dugas' diagnosis showed the patient's inability to place the palm of the hand upon the oppo-

site shoulder, or to have it thus placed. Several very forcible attempts at reduction were made with the heel and also with the knee in the axilla, in the ordinary way, but without success.

I then resorted to the method that forms the subject of this paper. The patient was placed upon his back, the hollow of my foot was placed in the axilla, my leg was placed against the patient's side, and his arm against my leg. Then, with the intention of first feeling my way through the operation, the wrist of the patient was grasped and a moderate extension made, while at the same time the arm was slowly carried outward from the body, and by a slight bend of the ankle, pressure was made upon the inner aspect of the arm.

The patient and myself were both greatly surprised to observe the condyle roll easily into its cavity. Before I had discovered that the reduction had been accomplished, the patient exclaimed: "There, I believe it's done. I think I felt it go in." And sure enough, it was so. The very moderate force used in connection with the outward swing of the arm had succeeded, after the application of a very powerful force in the old ways had failed.

Dr. Heighway said he had experienced very little difficulty in the reduction of this dislocation, when the injury was recent. The method of reduction by manipulation alone, he had seen tried in some cases successfully.

Dr. Conegys said he had never failed in the reduction of the downward dislocations of the humerus. He places the foot in the axilla, and after making some extension, elevates the arm.

Dr. Mackenzie thought the plan of reduction recommended by *Dr. Hough* seemed reasonable. By drawing the arm down, the rotation of the head of the humerus is in the opposite direction to the one desired.

Dr. Holdt reported the following case:

A healthy German woman, in whose family there was no history of nervous diseases or syphilis, had been afflicted occasionally with headache of no considerable violence. She was the mother of three children.

About July 1st, as she was going out of her house, she was bitten on the calf of the right leg by a cat. She was frightened and much excited. Cold water was applied to the wound and it soon healed. A fortnight later she was seized with trembling in the right foot, beginning in the great toe. The trembling was not constant. Two weeks later she was seized with an epileptic attack affecting the whole body. This commenced with an aura proceeding from the seat of the bite. Three months later she came under *Dr. Holdt's* care. She had at that time frequent attacks of epilepsy—the aura always proceeding from the right leg. There was anæsthesia of that leg and foot, which disappeared for a short time and then appeared again with hemiplegia of the right side of the body. At that time she did not complain of headache; but felt much exhausted after each fit.

A ligature placed around the limb when the aura was felt prevented an epileptic attack. The fact that she had so distinct an aura from the cicatrices (of which there were three, all small), induced Dr. H. to try the effect of a cauterized circle around each cicatrix. Nit. silver was applied, and for a fortnight she was free from epilepsy. On the recurrence of the paroxysms, the cicatrices were excised to the depth of the sub-cutaneous fascia. From this time she was entirely free from the epileptic seizures. About three weeks before her death, which occurred early in December, she again began to complain of headache, up to this time her mental faculties were unaffected. There was no fever at any time; her appetite was good, bowels were regular, and she slept well; but she remained in bed, saying that she could not stand on account of dizziness. For two weeks preceding her death she was violently insane, refused food, and finally died of exhaustion.

Were these phenomena due to the bite? or, had there been some previous affection to which they could be attributed?

Dr. Mackenzie made a post-mortem examination of her brain, and found two tumors, one about the size of an almond in the middle lobe of the left hemisphere, just to the left of the longitudinal fissure. The other, which was about the size of a bean, was found in the posterior lobe of the same hemisphere. In color they were a little darker than the normal gray matter of the brain, but were much harder. They did not project beyond the surface of the brain, but seemed to lie immediately under the pia mater. The brain substance appeared to have been absorbed before the tumor. On microscopic examination they were found to be composed of cells, rather large than pus cells, granular, and some contained nuclei. He thought them gliomata.

Microscopic preparations exhibiting sections of the tumor, and of the gray substance near the tumor, were exhibited to the Society.

Dr. Mackenzie thought these growths existed prior to the bite, and predisposed to the epileptic convulsions, which had the bite for their exciting cause.

Dr. Holdt said that their examination was limited to the brain, but there were no indications that other organs were affected. The fact that the epileptic seizures were arrested by a ligature around the limb, and finally entirely relieved by excision of the cicatrices, inclined him to the opinion that there was a close connection between the bite and the growth of the tumors; and he believed that if the cicatrices had been excised immediately on the appearance of the first epileptic attack, death might not have resulted from the tumors for years.

Dr. Comegys thought the mental condition the result of the injury. It was followed by marked symptoms, as anæsthesia, and convulsive action of the toes, those convulsive actions seeming to harmonize with the lesion of the brain, corresponding with Ferrier's experiments.

The tumor in the brain being non-malignant, but a mere hyper-

plasia of the neuralgia, he believed the whole change in the brain structure to be the result of the bite. It is conceivable that injuries of remote parts, especially if mental emotions be connected with them, may give rise to neoplasms in the brain.

Dr. Kearney thought the phenomena here, cause and effect, were reversed by the last two speakers. In this case, a brain lesion existed which would ordinarily exhibit the phenomena mentioned, and yet the lesion is looked upon as the result of peripheral irritation. To this view he could not assent.

Dr. Comegys referred to ulceration of duodenum following extensive burns of the surface; and to injuries of one extremity being followed by a corresponding lesion in its fellow of the opposite side, as parallel cases.

Dr. Holdt thought it difficult to give a satisfactory explanation of the phenomena here presented. He thought there were, at the points where the growths were found, points of minor resistance, parts more liable to be affected by peripheral irritation, and that as the result of that irritation, we had a degeneration of the pre-existing elements, giving rise to what had been, incorrectly (as he thought), called *tumors*.

CHILLICOTHE, OHIO, February 23, 1876.

A meeting of the physicians of Chillicothe, Ohio, was held according to agreement at the office of Dr. George Stockton. Present: Drs. L. W. Foulke, Jonathan Miesse, Wm. Waddle, James Miller, G. S. Franklin, Frank Miesse, R. B. Hall, I. B. Searce, Gertrude Jones, and George Stockton. Dr. J. Miesse was called upon to occupy the chair, and Dr. Stockton to act as Secretary.

Dr. Waddle wished to know the object of the meeting.

Dr. Franklin stated that at a previous informal meeting, the subject of the druggists filling prescriptions more than once had been discussed, and that he had proposed as a remedy that all prescriptions be returned to the doctor making them, once a month.

Dr. Miller asked for Dr. Waddle's opinion.

Dr. Waddle stated that he supposed the object of the meeting was to form a Society for mutual improvement, the regulations of fees, and to promote harmony among the profession. He thinks we have no right to interfere with the prescription; we have sold it; it belongs to the patient; it has passed out of our hands.

Dr. Stockton stated that he thought the complaint was that druggists used our prescriptions in doctoring special cases.

Dr. Miller wanted to know what business drug-men had to prescribe.

Dr. Waddle said he don't think we can prevent it.

Dr. Franklin said the whole subject had been discussed in New York, and it was held that the patient does not buy the prescription in fee simple, but only advice suited to that special time and to special circumstances. The doctor is responsible for that one single use of the prescription; but if used again, without his consent, the druggist

becomes liable for any damage that may occur. Hence it might be injurious to the patient as well as unjust to the doctor to have a prescription repeated again and again, without a fresh order given after a careful review of circumstances that may be changed.

Dr. Waddle thinks that this question ought to be put off, and that we ought to discuss the propriety of organizing a Medical Society.

Dr. Waddle moved that we form a Ross County Medical Society.

Dr. Searce thinks if we form a society it will be selfish to have only a few in it. The whole county ought to be admitted and allowed to assist. He had spoken to many in the county, they all want a Society; and want the meetings held in Chillicothe, as the most central point.

Dr. Miller answers *Dr. Waddle's* proposition to unite the physicians of the county, by suggesting it would be better for us to see how we could agree among ourselves. We might organize for a short time and then invite the country doctors.

Dr. Franklin wants to know if we shall form under the Code of Ethics adopted by the Ohio State Medical Society, and by the American Medical Association.

Dr. Miller wants it started on a basis of high-toned honor and mutual improvement.

Dr. Searce suggests that if we agree on the Code of Ethics as a city society, and then the country physicians be called in, it would have to be decided again. He then made a motion that we have a Society without the Code of Ethics.

Dr. Miller wants it confined to the city at first.

Dr. Waddle's Code of Ethics: "Do unto others as you would have others do unto you."

Dr. Searce says the only thing in the Code of Ethics he objects to is in regard to consultations; that he will use his own judgment in this respect, and intends to consult with any one who may call upon him, regular or irregular, white or black, male or female. He says the code would bar us from consulting with lady physicians.

Dr. Franklin says that in regard to consultations with lady physicians the code itself did not forbid it. We could make our own by-laws, and consult with them if we pleased. He insisted on forming a Society on a basis which would be honorable and right. The following carefully prepared paper was read by him as showing his views:

Dr. Franklin.—Shall we have a Medical Society? Shall we recognize the Code of Ethics adopted by the American Medical Association as our Constitutional Law?

These two questions seem to me to be almost, if not quite, identical in their scope, and their discussion calls us together this evening.

The advantages of a medical society are well known. By combining their influence doctors can obtain much more substantial

results than if they worked separately or at cross-purposes. "United, we stand; divided, we fall," applies to the profession of medicine as well as to States, or to bodies of men, such as merchants, agriculturists, miners, laborers, etc. In the question of our relation with the druggists, which was the starting point of the present movement, we all agree that united action can accomplish that in which individual effort has failed. The questions of fees, prompt payments, frequent presentation of accounts, and many others, led united action to be effective. Then, a large amount of social pleasure and professional profit can spring from frequent meetings. Any questions affecting the public interests can be discussed; opinions can be interchanged as to news or unusual features of disease; advice can be asked as to the proper course of treatment to be pursued under given circumstances; and the newest contributions to the literature and therapeutics of our profession can be brought to the bar of our united criticism. There is sure to be profit for each and every one of us in a medical society well sustained and properly conducted. No one will deny this.

But, what is this "Code of Ethics" that other medical societies always adopt as the first step?

It is the "Bill of Rights," the "Constitution," the "Organic Law" of the medical profession, setting forth its dignity, its honor and its duties, and making plain the path of rectitude for all. The best of us are only too apt to stray away from the path of duty and of honor, unless restrained by definite, well-considered rules, serving to guide our wayward feet.

This Code of Ethics has been deliberated upon, scrutinized, and carefully discussed by thousands of better and abler men than we can claim to be, and has been endowed by successive generations as, humanly speaking, perfect. Outside of it is outlawry and dishonor, according to the *fiat* of the American Medical Association; within its folds is companionship and friendship. Each graduate of a regular medical college here present, before accepting his diploma, was required to take the "Hippocratic Oath," binding the person taking it to uphold the dignity and honor of the profession. We solemnly agreed to hold ourselves subject to a revocation of our diplomas, whenever we did anything to compromise that dignity and honor. The Code of Ethics tells what that dignity and honor is, and how we shall uphold it. If a Gross, a Parker, and a Dawson; if a Clark, a Flint, and a Metcalf, find the burden of accepting this code an easy one, nay more, if they are strenuous in advocacy of its claims, surely we can do no better than to follow in their illustrious footsteps.

But I am pained to say that some of our number think this code too exacting, and refuse to accept it as the basis of our proposed society. If the question is asked, in what particular is it too burdensome? I can conceive of one answering. "It defines quackery too boldly to suit my views. I believe a Homeopathic doctor (professionally speaking), is as worthy the confidence of

sick people as any other doctor, and I believe it to be my duty to try and sustain him; to give him standing in the community by consulting with him; by saying, either openly or by implication, that he has treated such and such a case exactly right." I can conceive, I say, of such an argument, but would advise the one using it, if he wishes to be thought consistent, to call himself a Homeopathic physician and to discard his regular diploma at once, if he has one. Another might say.—" Even if I did not believe the Homeopathic theory and practice to be right, if I thought it, on the contrary, to be radically wrong and deceptive, I should still consider it a call of humanity to consult with him, in order to rescue the deluded sick man out of the meshes of this humbug, to save his life and to teach him the superiority of the regular profession." This argument is very deceptive and captivating, and is hard to answer when self-interest holds the deciding voice. Let us see what honor and integrity have to say about it. I believe Homeopathy to be a false doctrine, but humanity calls me to consult on a case where it has been in use. What am I to do? I must tell the patient, if I am truthful and consistent, that he has been trusting to a delusion and a lie. I must tell the doctor that he was a fraud (professionally) and should not trifle with the lives of human beings. The result of this would be that our Homeopathic friend would never cross our path again, that he would feel insulted and outraged by our truthful manner of stating what we believe to be a fact. How much better it would be to decline consultation as the code enjoins! If self-interest governed my action, and truthfulness and honor were left to look out for themselves, possibly the prickings of conscience might be stilled while I consulted with my Homeopathic friend, patted him on the back and called him a good doctor in the presence of the sick man; received the coveted consultation fee, and begged him to give me another call as soon and as often as possible! Thus would I bind him unto me "with hooks of steel" and receive the benefit of all his consulting practice, leaving to more fastidious doctors the empty husks of conscientious regard for truthfulness, and for the honor and dignity of the medical profession.

Oh! how wise is our Code of Ethics that prevents our falling unwittingly into such miserable sophistry as this; that guides our wayward feet, only too ready to stray away after worldly gods, into the path of a noble honor that might well aggrandize any man.

Gentlemen, I can not help joining Dr. Dawson in saying "that we should by all means organize under the Code of Ethics, which can not be improved."

Dr. Waddle said these rules should be laid aside, they will break us down unless we ignore them. Our society should not become a law-making body. His advice was at the service of any one who called upon him. He looked upon it as a matter of duty.

Dr. Stockton thinks that this matter of consulting with Homeopaths does not elevate them any, but lowers them.

Dr. Searce asks if we must get down on our knees before the society to ask permission to consult with a Homeopath and let the patient die in the meantime.

Dr. Waddle asks if it would confer any advantage on us to form a Society under strict rules.

Dr. Jones thinks there is some responsibility on the regular physician in educating a community in what is right, and that we only elevate Homeopaths into undeserved importance by countenancing them.

Dr. Waddle thinks we would elevate them into importance by persecuting them.

Dr. J. Miesse related a case where he undoubtedly saved life by responding to the call of a Homeopath.

Dr. Jones thought they would have had plenty of time to have discharged the Homeopath and called *Dr. Miesse* to help them.

Dr. Miesse said the husband was so staunch a Homeopathist that he never would have done it.

Dr. Franklin said, is it honorable for us to consult with a doctor when we have no confidence in his theory and perhaps know as little of its details as he does of ours?

Dr. Frank Miesse stated that he and *Dr. Moore* (absent), first started this movement with the idea of forming a self-protective society.

Dr. Waddle then made a motion that we form a Medical Society of city physicians, striking out the Code of Ethics. This was seconded, and the chairman ordered the roll to be called and votes taken by name.

The vote stood as follows:

Ayes—*Drs. Waddle, Searce, Miller, Miesse, J., Miesse, F.*—5.

Nays—*Drs. Jones, Hall, Foulke, Franklin, Stockton*—5.

Dr. Stockton having it made clear to him that he would not violate the Code of Ethics in so doing, and being decidedly in favor of a Medical Association for improvement, asked that he might change his vote. The vote then stood 6 to 4, other votes being as above. It was then moved and carried that we now adjourn to meet Wednesday, March 1, at 7 P. M., to form a Medical Association.

(Signed)

DR. GEO. STOCKTON, *Secretary.*

Correspondence.

CHILlicothe, OHIO., *March 7, 1876.*

EDITOR CINCINNATI LANCET AND OBSERVER:

Dear Sir—Wishing to ascertain the sentiment of the regular profession on certain points, I believe I can take no better method of obtaining it than that of publishing the enclosed record of pro-

ceedings of a meeting of the physicians of this city, and asking for advice on the following points:

1st. Can a regular physician honorably keep silent when his fellow graduates propose to ignore the Code of Ethics?

2d. Can he join a society avowedly trampling on the Code of Ethics, and still be received into fellowship with the American or the State Medical Societies?

3d. In accepting our diplomas, when swearing to uphold the dignity and honor of the profession, was any mention made in the oath of accepting the Code of Ethics as our guiding law?

4th. If we are pushed to extremity would it be right for us to apply to *have the diploma revoked*, of one who notoriously consults with Homeopaths, and glories in it, thus trampling on the dignity and honor of the profession, and setting a most pernicious example to the profession in his vicinity?

5th. What is our duty in educating the opinion of a community as to professional honor and dignity; can we afford conscientiously to let them believe in a delusion, even with our silent consent?

Yours respectfully,

DR. Y. S. FRANKLIN.

ANSWER TO 1ST QUERY.—When a regular physician knows that his fellow-graduates ignore and violate the Code of Ethics, he is, most certainly, in duty and honor, bound to notify the Faculty of the college that granted a diploma to the man with irregular tendencies, stating the facts in the case. The case being made clear, the Faculty will erase his name from their list of alumni. If the individual belongs to the State Society, or any of the State Society auxiliaries, charges should be preferred, stating the facts, and the society left to act upon the case.

ANSWER TO 2D QUERY.—No man should be admitted as a member of a society of regular physicians who avowedly tramples on the Code of Ethics. Nor would a society known to contain members in good standing, who violate the Code of Ethics, be allowed representation, or its members admitted to fellowship, in either the State Society or American Medical Association.

ANSWER TO 3D QUERY.—The form of oath administered in the various medical colleges to their graduating classes is not always the same. Some forms include obedience to the Code of Ethics adopted by the American Medical Association, others do not.

ANSWER TO 4TH QUERY.—We doubt whether the Faculty of a college has any power to revoke a diploma once granted, beyond the omission of the name from all catalogues. (See answer to first query.) A man should not require much pushing to cause him to perform a right and just action.

ANSWER TO 5TH QUERY.—Whenever an opportunity presents to calmly and intelligently inform individuals of the folly of a belief in a delusion, it is our duty so to do. By a straight forward, strictly upright, and honorable course of daily life, giving your patrons, at all times, your best skill and attention, you will be most likely to impress the community in which you live with the dignity and honor of your profession.

We suggest to the physicians of Ross County, who are in accord with the principles set forth in the Code of Ethics adopted by the American Medical Association, that they at once form a County Society, and elect delegates to the State Society, empowering them to request the State Society to recognize the Ross County Medical Society as one of its auxiliaries. Such action will then entitle the Ross County Society to representation in the American Medical Association. By adopting such a course, your record will be kept clear; and your influence, as a body of intelligent, educated physicians will be recognized both at home and abroad. Have no fellowship professionally with quacks or quackery. The phrase is trite, but nevertheless true: "That we are known and judged by the company we keep; and that it is impossible to handle pitch without being defiled."—[Ed.]

COLUMBUS, OHIO, *February 24th, 1876.*

EDITOR LANCET AND OBSERVER.

Dear Doctor:—Do you ever go to Commencements? Probably not—well as a general rule you are right, but you certainly would not have been sorry if you had broken your rule for once and attended the Commencement of Starling Medical College with me last evening. The Opera House was bright and gay with fashion and beauty, the students full of importance and pleasure, the music good, the speaking excellent, every thing contributed to make up a most enjoyable evening.

After the usual opening exercises, and presentation of diplomas, the audience listened for an hour to Mr. M. D. Conway, who discoursed in a most attractive fashion on the scientific spirit of the age, and gave some interesting personal remembrances and sketches of the eminent scientific men of London.

You do not need me to eulogize Mr. Conway to you, you know who and what he is, suffice it to say he kept the undivided interest of his audience from beginning to end, and I never heard him speak so well. After his address a short speech to the graduating class was delivered by Dr. J. H. Pooley, Prof. of Surgery, and the happy evening came to an end. We have attended many Med-

ical Commencement, but never a better one than this, which speaks well for old Starling, who keeps her pristine vigor, and promises to do many years of good work yet in the noble cause of medical education. Long may she prosper.

DOCTOR.

PHILADELPHIA, *Fébruary* 29, 1876.

TO THE EDITORS OF THE CINCINNATI LANCET AND OBSERVER.

Gentlemen: In your issue for January, 1876, there is a notice of the Report of the Board of Health of Philadelphia for 1874, which is based upon a misinterpretation of facts, and therefore unfair in its inferences. As I am mentioned by name in the article permit me to correct some of the errors contained in it.

The Board of Health in this city is entirely out of politics; three-fourths of its members being appointed by the courts, and one-fourth by city councils; yet these gentlemen, many of whom have served the public gratuitously and acceptably for many years, without suspicion at home, are judged by your reviewer to be guilty of corruption, and as the street-cleaning department are stigmatized by him as "plunderers and thieves."

In Philadelphia it costs \$1,007,647 to clean the streets for three years, or \$336,882 annually, and its Board of Health justly thinks that the amount is small to clean over six hundred miles of paved streets, when compared with the costs for similar work in other American cities. Had your reviewer divided the amount of the the contract price, paid in this city for street-cleaning, by the number of years over which the contract extended, he would not have fallen into so egregious a blunder, nor based such unjust personal charges upon an error in arithmetic.

Your reviewer says the mortuary returns of Philadelphia are "unreliable," but gives no reason for his opinion. Now, inasmuch as the percentage of death rate is arrived at in the same manner as is followed in all cities where records are kept, while no labor or expense is spared by the Philadelphia Board to secure full and accurate returns, I am constrained to consign this statement also to the limbo of unwarranted assumption.

In conclusion, allow me to state, for the information of your reviewer and his readers, that Dr. William H. Ford, Secretary of the Board, is alone entitled to the credit of preparing a report which has been very favorably commented upon abroad, of which, as a member of the Board of Health, I am proud, and which is well able to bear intelligent, well-informed criticism.

Trusting that you will give this reclamation a place in your columns, I am, with much respect,

Your Obedient Servant,

SAMUEL ASHHURST,

1423 Walnut street.

Editorial

Annual Re-union of the Alumni Association of the Miami Medical College, Cincinnati, Ohio.

The regular annual re-union of the Alumni Association of the above college took place February 28, 1876.

The business meeting was held in the college amphitheatre in the afternoon, where the following officers were elected for the ensuing year:

President, Dr. B. Stanton, city, class of '57; first Vice-President, Dr. R. C. Bond, Aurora, Ind., class of '54; second Vice-President, D. T. S. Neal, Dayton, Ohio, class of '54; third Vice-President, Dr. J. D. Gatch, Lawrenceburg, Ind., class of '54; fourth Vice-President, Dr. W. M. DeWitt, of Longview Insane Asylum, class of '72; fifth Vice-President, Dr. F. R. Evans, Franklin, Ohio, class of '73; sixth Vice-President, Dr. S. L. Ensoninger, Crawfordsville, Indiana, class of '74; Secretary, Dr. William Judkins; Treasurer, Dr. J. L. Cilley; Executive Committee, Drs. Wm. B. Davis, A. D. Bender, L. A. Sheppard. Dr. Thomas S. Neal, of Dayton, Ohio, class of '54, was elected Orator for the re-union of 1877.

The banquet was spread at Keppler's, at 8 o'clock in the evening.

Dr. W. Y. Brown, retiring President, in an eloquent and appropriate speech, addressed the Association and welcomed the graduates of '76. On behalf of the latter, Dr. Allison Maxwell made a fitting and very happy response.

The Oration, *the* feature of the evening, was delivered by Dr. G. R. Patton, class of '55, of Lake City, Minnesota, his subject, the "Medical Pendulum" (see abstract published in another part of the LANCET AND OBSERVER). The address though long was attentively listened to throughout, and was received with loud applause.

The presence of Prof. E. B. Stevens, in bodily form, added not a little to the joy of those present.

THERE—just as we expected! Now we know there is something the matter. Last month our neighbor of the Medical News, entitled our Metropolitan Medical College, “The Great Medical Windmill,” that each of the professors was a “mill” of that persuasion; that wind was its only motor power; hinted at gas and flatus as material invigorators, and a’ that. Now, from our stand-point, we have unfortunately been led to believe that in the successful management of a medical college, “The Wind” was a very necessary commodity, and that a lack of wind was very apt in any case to prove fatal by reason of a general collapse. Abstract the wind from even a Metropolitan professor, and his assets about this time of the year will soon become a stench in the nostrils of those who seek his presence. Knowledge may yet be dug out of his brain and nervous system, and the ardent student may even obtain wisdom by a careful examination of the whole length of his spinal cord. As the great man of Gotham teaches that the brain is not the only seat of the mind—but as many of his experiments were made upon his own corpus—we are not surprised at the result obtained or the conclusions arrived at. The student will listen in vain for the chunks of lore that were wont to emanate from the lips of the Professor, when his brain responded to the more than magnetic influence of the wind motor.

A Windmill, ah! A Windmill, indeed! Where is the granger so obtuse, or whose locks are free from hay seed, that does not know that a windmill is one of his most useful implements, as without it he is unable to separate the wheat from the chaff. Such being a prime use of the scorned windmill, we hope the day is not far distant when one will be attached to every college in the land, and that it will be kept in good working condition. Its functions being to winnow out all unprepared material that may seek permission to matriculate, and kept in constant and vigorous operation at the end of every session. If there is little or no chaff, so much the better, the operation of the mill will do the wheat no harm. As an evidence of the necessity of such an attachment to medical colleges, a professor recently informed us that the Faculty in his college (Miami) had, within the last four months, refused to permit no less than

eighteen persons to matriculate. The principal causes of rejection were: deficient preparation, unacceptable testimonials, and bad motives, a desire to graduate after attendance on one or a partial course of lectures, etc.

We are convinced that a good windmill is a necessary attachment, and one that should have a place in every well-regulated medical college.

Not having a fear of the Dean of the Ohio Medical College before their eyes, the Ft. Wayne Medical College organized March 14. Articles of Association were made and entered into, and the following Faculty chosen: Theory and Practice, B. S. Woodworth, M. D.; Surgery, W. H. Myers, M. D.; Anatomy, M. M. Latta, M. D.; Obstetrics, J. N. Rosenthal, M. D.; Medical Chemistry, J. N. Ford, M. D.; Gynecology, etc., C. B. Stemen, M. D.; Clinical Surgery, H. D. Wood, M. D.; Demonstrator of Anatomy, Dr. Buskirk.

We are in receipt of the prospectus of the *Ohio Medical and Surgical Journal*. To be published at Columbus, Ohio, with Drs. J. W. Hamilton and J. F. Baldwin, Editors. We welcome the new candidate for professional favor, and wish its managers an abundant success.

Extract from the Address of Prof. Bartholow at the Commencement of the Ohio Medical College March 3, 1876.

* * * * *

Comparisons are not unfrequently made between the Eastern and Western schools of medicine, unfavorable to the latter. Especially has a writer in Lippincott's Magazine, himself a teacher in a leading Eastern medical school, while condemning the present system of medical education, reflected severely on the Western colleges. The strictures of this medical iconoclast are not applicable to the Medical College of Ohio. Our course of instruction is longer and of more varied character than that of the boasted University of Pennsylvania, to the faculty of which this captious writer is attached.

The present time is distinguished for a remarkable agitation on the subject of practical instruction. We hear on all sides the clamor of those who maintain the inutility of didactic lectures, and the paramount necessity of clinical or bed-side instruction, and of practical laboratory work. Without entering into the argument of the relative merit of the two systems, it

will suffice to state that the Faculty of the Medical College of Ohio, believing middle ground to be the best position, have arranged a due combination of both didactic and practical instruction. The work had been done before these self-constituted disciples of a new creed had begun their noisy and empty declamation. "Oh, my!"

* * * * *

The greatest evil which now besets medical education is the multiplication of medical colleges. There is no limit to the production of new colleges, except a limit to the conceit and ambition of Doctors be reached. In this city there are five medical schools besides the Medical College of Ohio. It is true, the attendance at all of these scarcely equals the matriculation list of this school, but they compete for patronage and maintain a precarious Existence.* In Columbus there are two medical colleges, in Cleveland three, in Indianapolis two, in Louisville five, in Evansville one. These provincial schools are, for the most part, poorly provided with the means for instruction. They have no hospital facilities worthy of the name; their faculties dole out dull, didactic discourses from ordinary text-books. Happening one day to be detained in one of the villages I have just mentioned, I strolled into a medical college. This imposing institution occupied some barrack-like rooms in a dilapidated warehouse, and the means of instruction consisted of one skeleton and a few vials. The wretched shifts to which these schools are reduced in the struggle for existence tend more than any other causes to lower the standard of requirement, and to degrade medical teaching. The advantages which they have to offer do not consist in the character of the institution, but the facility with which the degree of M. D. is obtained. In this free country, where three doctors who possess five hundred dollars worth of medical appliances can found a Medical College and confer degrees, what hope have we that the number of these sham institutions will be reduced?

This gigantic evil will eventually work its own cure. These minor schools will cease to be able to maintain themselves when the ignorant and uneducated classes from which they now draw shall no longer exist. The better educated students now resort to those medical schools which offer not the most easy route to the doctorate, but the most improved methods of instruction. It is a hopeful indication that the large medical schools in the principal cities maintain their supremacy, not only in the number but in the quality of their students. This centralization of medical teaching must improve its character and give that dignity and tone to medical schools sadly wanting in those so deficient in resources as to be compelled to resort to very questionable expedients in order to maintain a corporate existence—*The Clinic*.

If the above address by Prof. Bartholow was intended as a therapeutic agent, it was a decided success, however, its use would seem to be objectionable on account of its variable effect, its action on different persons not being uniform, consequently we fear it is unreliable. In corroboration of our views we append a letter received from a provincial professor who does not lecture in a warehouse to a skeleton and a few bottles, and in contrast an extract from an editorial in the *American Medical Weekly*. The effect in one case is that of irritation, in the other smiles,

TO THE EDITOR LANCET AND OBSERVER:

Dignified, aggressive Dean Bartholow took occasion at the late commencement of the Ohio Medical College to inject (hypodermically of

* The Ohio Medical College is the only regular Medical College in Cincinnati that does not possess its own building in fee simple and free from incumbrance.—[Ed.]

course,) a good dose of soothing self-laudatory exaltation into the school with which he is connected, as well as to plant an irritating plaster on the backs of the Ohio's rival schools; and then wound up with a grand diatribe on the conceit and ambition of doctors in organizing medical colleges in such provincial villages as Indianapolis, Columbus, Cleveland, and Louisville.

Now Dean Bartholow is undoubtedly a moderately great man, especially in his own estimation, and may possibly do for a green backwoods pork metropolis like Cincinnati. Has he not written largely, has he not made the run of an old country hospital or two? assuming in his rapid transit the judicial role on all he saw, drawing invidious comparisons? nothing there for him to learn, oh, no! Has he not helped one man into his grave hypodermically, thrust a wire into another's brain only to her death that he might perchance out rival the investigations of Hitzig and Ferrier, on the centre of muscular motion. All this certainly should have made him great, entitling him to the self-appointed office of a grand censor on his peers, his tree of knowledge like that in the garden of Eden edged about on every side with swords. What if he has discovered no new principle in the healing art, added nothing to our armor or ammunition against disease, made no principle or theory of practice clearer, stronger better—all this should and does not detract from his overwhelming egoism, his envious greed of greatness which is ever implacable toward all who dare attempt to rival or oppose him.

Perhaps there are others besides him, others indeed embracing in all probability ninety-nine hundredths of the profession who deplore the multiplication of medical schools, but there are not *many others* who would have had the exquisitely stupid, ill timed folly, when before a promiscuous audience and before medical neophytes, to hurl dirty water over the profession, and over some in it *in every sense* his superiors. Was this the way to meet an abuse—the tribunal before which an evil might be allayed or exterminated? Nothing of the kind. It was simply an occasion for him to give vent to his captious spirit of detraction, his insatiable greed of glory that would fain absorb all in his own magnificent self, and his irritating envy and spite that the Ohio school is not the sole and self constituted Esculapian oligarchy before which all on the Ohio, Wabash and Indiana valleys must bow the knee.

If the Dean has a teeming brain, and if it seethes only with borrowed ideas, it is not his fault as much as it is his misfortune. In this view we would offer to lend him an idea which to him has no doubt the virtue of originality, to-wit: That the practical mode of making an effectual approach to a remedy for the evil he proposes to deplore, is to get the signatures of the ninety-nine hundredths of the profession who deplore with him, to a petition to so amend the Constitution of the State, so that the number of the medical colleges shall be proportioned to a definite ratio of inhabitants, only increasing as the latter increase, and that any person applying for a charter under this condition must be able to show their ability to provide a reasonable amount of clinical instruction to the students under

their supervision. Let Monsieur Bartholow stir this in his pugnacious, aggressive calvarium; bring it to a boil, and scatter it boiling hot all over the State, making it at least a *fait accompli*, and even the professors of medical colleges in provincial villages will rise and call him blessed—at least so says one of them.

PROVINCIAL.

* * * * *

Among the many accounts of this familiar scene, that in regard to the final exercises of the Ohio Medical College, at Cincinnati, Ohio, will probably receive most of the amused attention of the Medical public. Indeed, the following portion of the address delivered by Professor Bartholow, one of the faculty, is so comic that it is given the benefit of increased circulation; that more may enjoy it and laugh over it; for surely, in the daily routine of a work-a-day life, it is charity to present anything that will bring laughter in the place of gloom, and lighten hours after toil with merriment and pleasure. The extract reads thus:

* * * * *

While, of course, no one could have the bad grace to contradict the assertion made by Prof. Bartholow, as to the village-like proportions of Louisville, when contrasted with Cincinnati, it is fair to state the fact that there are more students in Louisville every Winter, than in any city west or south of Philadelphia; and if, under such circumstances, Louisville appertains at all to a village-like position in the list of medical centres, that which must be accorded to Cincinnati would not very conspicuously sustain Dr. Bartholow's assertions, or satisfy his hopes.—[*American Medical Weekly*.]

MARRIED.—Thursday, March 9, 1876, at Boston, Mass., J. H. Baxter, M. D., Chief Medical Purveyor, U. S. A., to Florence Tryon.

Review of The Medical Jurisprudence of Insanity, by J. H. Balfour Browne, is crowded over until next number, also other communications.

Mental and Nervous Disorders.

Review of Nervous Disorders, Insanity and Medical Jurisprudence.

By D. A. MORSE, M. D.

The number of journals, both American and Foreign, devoted exclusively to Nervous Disorders and Insanity, together with the extensive literature of Pathology and Medical Jurisprudence in their relations to these same subjects, renders

a monthly digest of the new material therein contained important and greatly to be desired. In years past, medical journals giving attention to every branch of Medical Science, received their full proportion of contributions to these subjects, but with the increasing importance and special attention given them, elaborate articles, or those intended more particularly for specialists, have found a resting place in the various quarterlies, or in monographs, where as much space as was desired could be occupied without crowding out other valuable matter. Many writers now contribute articles of this class almost entirely to journals devoted to the subjects upon which they write, while many publish monographs, which from their very nature find circulation only among a small per cent. of the medical profession.

The mass of the medical profession, for want of time, or means, or the labor required, will never gather this mass together and sift the grain from the chaff.

To give the readers of the LANCET AND OBSERVER the benefit of what is most practical and useful, arrangements have been made with the editor of this department of the journal, by which a review of the most important papers, monographs, and works upon these subjects will be presented as they appear. It is designed to excite in the general reader a greater interest in this subject.

It should be a matter especially pleasing to the profession that our own country to-day furnishes several journals, which, in print, paper, editorial management, and in literary and scientific merit, are not surpassed by those of any one country of the known world. Germans and the French may have upon some points pertaining to the Anatomy and Pathology of the Nervous System exceeded in research, in pains-taking, careful experiment, but this is a merit to be accredited rather to individuals than to the profession at large. No better journals reach us, of the same number of pages, from abroad, than our own American Journal of Insanity, Journal of Nervous and Mental Diseases, The American Psychological Journal, or the Journal of Electrology and Neurology.

There is before us at present quite an abundance of material for review to furnish us employment during all our leisure time. The first of these we place before you is an octavo volume, cloth, of 80 pages, by A. C. Cowperthwait, M. D., of Kansas City, Mo., entitled:

INSANITY IN ITS MEDICO-LEGAL RELATIONS.

The author expects us undoubtedly to say that it contains nothing new, that it is a compilation, etc., and forestalls the reviewer by setting forth himself these facts in the preface. He does not flatter himself that he is bringing forward any strikingly new or original ideas in regard to insanity, but, on the contrary, desires to so blend the ideas and observations of eminent alienists with his own somewhat extended experience, that the work, though brief, may contain those essential facts relating to the pathology and diagnosis, and the legal relations of insanity which should be familiar to every physician. What more does any work, however elaborate it may be, contain? The author uses quotation marks freely, which is more just to the writers whose views he uses than the modern way of writing large books in which scarcely a trace of original matter, or of original ideas are to be found and which give credit to no one. In the first instance, he gets from those not familiar with the literature of the subjects little credit for his labor, and is plainly told it is a compilation, although it may contain four-fold more original matter than many works not containing a quotation mark. In the second place, from these same he gets credit for views not his own and rests with laurels he never won. The work before us represents mainly the views upon the subjects therein treated, of Maudsley, Hammond, Ray, Wynter, Bucknill, Tuke, and Griesinger, and page for page contains as much original matter as many large works that are standard authority. The work is divided into seven chapters.

CHAPTER I. *Introduction.* The position of an expert is an unenviable, important and honorable one, yet there are those who sneer at the idea of calling a physician to decide the question of insanity. The idea is being fast exploded that insanity is a subject of moral inquiry and not a physical disease. The fact, he says, is now established that insanity is a bodily disease, and scientific men of the profession are now laboring to discover the particular bodily derangements associated with the various forms of mental disease. While this may be true, as we believe it is, it throws little light upon insanity to declare it. The author does not venture beyond this declaration to lead us out of this gross ignorance into the full light of a knowledge of these bodily derangements, but leaves us much in the condition a man would, who placing before us some chemical compound, declares that it is composed of several constituents which we can determine by a properly

conducted chemical analysis, but that in the operation some will escape and we must do the best we can until some one recovers them. He tells us the bodily derangements in insanity are something entirely beyond the comprehension of those who have not made the subject a special study. Can those who have "made the subject a special study" inform us what special lesion of brain corresponds to any given mental state characterized as insanity?

The *tests of responsibility* then call for attention. Like most writers he does not clearly define what constitutes a test of *responsibility* and what a test of *insanity*. "Knowledge of right and wrong" is no test of insanity—it is purely a test of *intellectual capacity*. Who was ever asked in a civil case as a test of an individual's responsibility to determine whether he knew right from wrong? If knowledge be the test of responsibility, why do we not see a practical illustration of it in inquests involving simply the question of restraint in an asylum? Simply because it is recognized as of no importance whatever in determining the point in question, whether the individual is so insane as to require restraint, but is looked upon much in the same light as crimes that are made such only by statutory enactments, to be considered when circumstances in the mind of the Court seem to require it, but in the main to be ignored. Courts create a false standard of responsibility by which to measure the minds of men, and which applies to only one department of their mind—the Intellect. The world at large ignores it by having at least a practical knowledge that there are two other departments not included—the Sensibilities and the Will.

We next have detailed ten rules for experts. These contain nothing new. In a lecture published in the LANCET AND OBSERVER, in 1870, we used nearly the same language in some instances, and there presented all of the same ideas with many more drawn from our experience in court and reading.

Thus Rule 4 says: "He should insist on having all questions clearly expressed, and never allow himself to answer a question he does not thoroughly comprehend." In that lecture, Duties of the Medical Witness, and his Privileges, "we said, "The witness, as a privilege, may insist upon having every question plainly and fairly stated, and he should never attempt to give a reply to questions that he does not fully understand, but insist upon having it so stated that he can comprehend it, lest he leave the impression upon the jury, that he is unacquainted with the subject, or open the way for his own embarrassment." Again, Rule 6 says: "He should not allow

himself to be drawn out into giving an opinion on any supposed or imaginary case;" and Rule 7: "He should decline giving a positive opinion on one or two isolated symptoms or facts, etc." Upon this we said: "The witness should be on his guard against the attempts of learned counsel to present a supposed case so nearly like the case in question, in its leading features, that his evidence or opinion, based upon this statement may be construed far differently from what he intended. Counsel often attempt to draw opinions upon an abstract idea or isolated fact. In this case let the witness state clearly that by no one feature of the case has he arrived at his opinion, but that the whole facts are necessary to determine the case."

Rule 8: "He should be careful about giving a definition of insanity," also advises the expert not to be drawn into any metaphysical discussion. Of this we remarked: "Lawyers are disposed to annoy witnesses greatly by asking definitions of subjects that can not be defined. * * * It would be better to state that these points can not be defined, than to be drawn into a discussion with the counsel, a thing which should always be avoided, as by a discussion the witness has nothing to gain, and the counsel has nothing to lose. * * The witness will be compelled to retreat in disorder if not in disgrace."

Rule 9: "He should not allow himself to admit that all people are more or less insane, or crime madness, a dividing line can not be drawn, etc." We said, "Counsel will frequently attempt to weaken the force of any opinion given relative to a particular case in question by trying to make it appear that the case is but one of nature's freaks, and consistent with the general mental condition of mankind. To accomplish this they will perhaps ask if all men are not insane. * * Great care should be exercised to distinguish between the shortcomings of nature, the old Adam that is innate, and well-constituted disease. It will be impossible for you to state where health terminates and where disease begins."

Rule 10 says: "He should not judge of the credibility of other witnesses or the truth of their testimony; it is for the jury to decide upon this matter." We said, "*do not attempt an opinion upon the merits of the evidence*, for with this you have nothing to do. The jury alone must decide upon the credibility of the witnesses."

Ray, Peck, and Elwell, as well as others, present similar views, or similar ideas may be drawn from their works.

CHAPTER II. *Pathology.* The author regards insanity as a disease of the brain, "and is only a symptom of disease of that organ." How does he prove it? He says, page 9: "It is

often impossible to discover after death any organic lesions of the brain whatever, and this is the reason that some deny that insanity is a material disease, and consider it to be an affection of the immaterial principle." How then do we know the brain is diseased if we have no evidence of it? For my part I believe that in many cases of insanity the whole nervous system is disordered. The brain partakes by sympathy with it, or conjointly with other nerve centres is involved. The mental phenomena, in one sense, are but the reflected rays from physical states. When we feel well there is mental exaltation. Melancholia and mental depression characterize opposite conditions. In other words, the mind is the mirror of the body. Hence so many cases of mental disorder *so far as the brain is concerned*, are but functional disturbances; hence we find in the brain no trace of disease. Irritation at remote points may modify the circulation of the brain, or induce by reflex action inhibitory influences that give rise to the phenomena of disease.

We have not space to follow the author through what he says concerning pathological conditions. There is little one would be inclined to dispute. The greatest objection seems to be that it is so brief little importance can be given to it. One can not discuss the pathology and pathological anatomy of insanity in ten pages, and expect his readers to be much enlightened.

CHAPTER III. *Classification.* This is unquestionably the best chapter of the book, and for it alone the book would be worth its price. He presents first the classification of Esquirol, then that of Dr. Maudsley, following this last with that of Dr. Hammond. He prefers this last to the others. This classification is a practical one, yet is not perfect; but this may be said of any that can be given. Hammond's first form is *Perceptual Insanity*. His second, *Intellectual Insanity*. Perception is an act of the intellect, for if the mind fails to recognize an impression made upon the senses, there is no perception. But if we understand Hammond aright, he refers under this first form rather to the disorder of the organs of sense than to the cerebral centres, the seat of intellect. Hence, a better term would have been, viewing it from this point, insanity of the senses, as distinguishing it from that of the idea-tional centres.

Hammond's third and fourth forms are, *Emotional Insanity* and *Volitional Insanity*. We much prefer the term *Pathetic Insanity*, or that of *Sensibilities*. Under this we would class the instinctive forms, all that pertains to appetite, desire, affec-

tion, and emotion. The one term would then include both forms.

In the study of the mind, we are compelled to recognize the Will as a distinctive department, but this we cannot do so distinctly when we classify forms of insanity. The will must be considered in its relation to all forms of insanity, and he who studies mental diseases from this standpoint alone, is led to believe that derangement of the will, or perversion of it, constitutes insanity. Thus the attention is fixed by volition, and if not so fixed there is no memory of an impression or idea. Coherency gives place to the wild confusion of dreams, when the will no longer guides the train of thought. Emotion is subordinate to will in the normal state of the mind. If we understand Hammond, when emotion predominates, and intellect and will are not apparently involved, or are but secondary factors, he would term it emotional insanity; but when the will is inoperative, either to affirm, *i. e.* to act, or to deny, *i. e.* refrain from acting, it is volitional insanity. In mania thoughts run riot—there is no power to control them—in melancholia there is apathy, and in many cases, apparently inability of the will to excite any train of thought aside from that upon which the mind is fixed. Both conditions are equally dependent upon bodily states.

In Hammond's classification, *Mania* is the fifth form, *General Paralysis* the sixth, *Idiocy* and *Dementia* conclude the list.

We prefer to divide insanity into two classes: First *innate* conditions, as idiocy and imbecility; and, second, *acquired*, those forms arising from the various causes operating subsequent to infancy. Idiocy, arrest of development previous to birth; imbecility, arrest prior to birth but manifest by a higher degree of development. Imbecility may result from causes operating during infancy which arrest mental growth, leaving the adult with the mind of a child. Dementia is the *result* of mental disease, the obliteration of mind.

CHAPTER IV. *Diagnosis.* We see here nothing that should cause us to give it much attention. It is a plain, brief direction of what to observe, and the manner of conducting an examination of one alleged to be insane.

CHAPTER V. *Criminal Responsibility of the Insane.* To this part of the subject twenty-seven pages are devoted. The main idea sought to be made prominent, is that moral responsibility should be based upon education or capacity to receive it. He says: "The only just test is the inability to control the action of the mind, and, properly speaking, this is no test at all, being only a matter of fact to be decided in each individual case."

From the title of the book we would expect this chapter to be more exhaustive of the subject. It presents many good ideas—extracts from the instruction, of courts with comments, but is far too superficial to base upon it the name given the work. Students who have read Ray or Maudsley's Responsibility in Mental Disease, or Bucknill on Lunacy, Criminal Responsibility, or Winslow's Plea of Insanity, or Mayo on Medical Testimony, will not be satisfied with it. His classification does not correspond with the practical application he here makes of it. Thus, in speaking of the Allen murderer, he says: "He was plainly an instinctive criminal, if he were criminal at all!" He has left no place in his classification to put this man.

After all, is not the most important question, What constitutes *sanity*, rather than a question of any special form of mental derangement? The best definition of this we have seen is the following:

Edmonds, *Select Cases*, Vol. I. 35, defines a *sane* man to be one:

1. Whose senses bear truthful evidence.
 2. Whose understanding is capable of receiving that evidence.
 3. Whose reason can draw proper conclusions from the truthful evidence thus received.
 4. Whose will can guide the thoughts thus obtained.
 5. Whose moral sense can tell the right and wrong growing out of that thought.
 6. And whose act can, at his own pleasure, be in conformity with the action of all these qualities—all these unite to constitute sanity; the absence of any one of them makes insanity.
- This recognizes the three departments of the mind: Intellect, Sensibilities, and the Will.

CHAPTER VI. *Epileptic Insanity.*

CHAPTER VII. *Treatment of the Insane.*

This has no reference to medical treatment, but should be entitled Disposal of the Insane, as it is the chief subject discussed. He says: "Many insane criminals, if indeed they were criminals at all, have died upon the scaffold because the authorities did not seem to know what else to do with them."

He is opposed to the present gregarious system of treating patients; would place no restraint upon the harmless, incurable insane; others he would "farm out," after the style of the infirmary at Gheel, Belgium. He would have a "judicious combination of asylum and open-air treatment, the one taking the place of the other, as circumstances and the welfare of the patient seemed to demand."

There are a number of works upon the care of the insane that may be read with profit by those who desire to investigate the relative claims of the different systems. Each has its advocates. Our author speaks of a community in Scotland in which the system adopted at Gheel has been tried. Those who wish to consider this question will find it fairly discussed in a work by Arthur Mitchell, A. M., M. D., entitled *Insane in Private Dwellings*, Edinburgh, 1864. Others of more recent date might be mentioned, but probably are not better adapted to the wants of the reader than this work.

We conclude this review with the remark that we have given the best idea of the work reviewed our space would allow. To those familiar with the works of Ray, Blandford, Maudsley, Bucknill, and Tuke, as well as the recent German and French writers, it will add but little to their stock of knowledge, but to the lawyer and student who seek brevity, it will be more valuable.



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T. M. STEVENS, M. D., Ass't. Editor.

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Original Communications.

Art. 1.—Diphtheria Affecting the Nipples and Milk Ducts, Shortly After Confinement.

Reported by T. L. WRIGHT, M. D., Bellefontaine, Ohio.

Mrs. G——, aged 28 years, was confined with her first child on the 23d of February, 1875. The labor was severe and rather protracted, but was in no other respect remarkable. A healthy child of average size was born. The mother bore the labor unexpectedly well, for she was of a delicate and nervous constitution.

Soon after confinement the nipples became sore. In the course of a few days unusual symptoms began to appear:

1. The milk was drawn from the breasts with increasing difficulty, and it often presented a pinkish appearance. In about two weeks it was very common to find in the milk gelatinous, or, rather, what seemed to be slightly organized casts of the lacteal ducts. It was supposed that as these stringy shreds were thrown out of the ducts, the milk would flow more freely. But in truth, there was no improvement in the lacteal flow; nor was there any abatement in the number of the vermicular stringy casts. There was heat and considerable general ten-

derness of the breasts; swelling was not excessive, but there were two or three feeble threats of superficial abscess. No abscess really occurred near this time, although the breasts were heavy and hard to the touch—that is, the integuments and subjacent cellular tissues were soft and natural, but the glands themselves were very dense and heavy.

It may be remarked that the left breast, which from the beginning was inefficient and inert, was abandoned after the first week. Efforts were made to dry it up. These were not entirely successful for some time. This breast passed through nearly the same vicissitudes subsequently as the right breast; but in so subdued and comparatively mild a form that no further special notice will be made of it. The attempts to establish a free flow of milk from the right breast were persevered in, not only by applying the child but by the aid of the breast pump.

The nipples of both sides continued to give great trouble. At length, nearly three weeks after the birth of the child, I was sent for in a hurry, and informed that no milk would flow from either breast; that, in fact, the orifices in the nipples were stopped up, and that a thick skin had grown over them. I had seen and dressed the parts a short time previously, and had not observed anything of this kind. When I arrived in the presence of my patient, I found that a tough membrane covered each nipple, and not a drop of milk could be drawn away. I dissected the false membrane off with forceps and scalpel, and a little milk was with difficulty obtained—at the same time, the bloody lymph could be seen rapidly condensing into a new membrane, as fast as the old one was torn off. This painful operation was repeated three or four times, when it was determined to wean the child and dry up the breast altogether.

2. It now became plain that the lacteal tubes, with all their ramifications were lined or stuffed with diphtheritic substance; and although the disease in a few days abated, and the nipples got better, it was clearly impossible to remove the deposit in the milk ducts, except through the slow process of absorption. The breast still felt hard and stony, but not much enlarged. The patient was advised by different friends to submit to the amputation of the gland, upon the theory of cancer. After the lapse of six months—that is, in August—there was formed an abscess in the right breast. From it half a teaspoonful of pus was discharged. This afforded great relief. The abscess ceased to discharge in a week, and has not opened since, it being now (February, 1876), a year since the

child was born. The breast is now in a state of *atrophy* without induration. It is symmetrical, but it will not likely ever again perform the functions of lactation. The organ seems to be about gone.

3. Associated with this fibroid condition of the right breast was a constant and severe pain in the right arm. The substance of the right arm was not sensibly increased in volume. It was not red or swollen; but the superficial veins were enlarged as though they were ligated. Their enlargement extended towards the shoulder, and continued unchanged until the veins were lost in the deeper tissues. This condition of the veins, as well as the tormenting pain in the arm, seemed to be connected with the solidified state of the breast (and subjacent structures. The hardness and swelling appeared to extend to the structures beneath the breast), and in contiguity with it. In diphtheria, the neighboring lymphatic glands generally become much enlarged, as do also the tissues in which they are imbedded. It is unreasonable to suppose that this case presented any exception to this rule. Near the base of the right breast is found the convergence of the cervical, the axillary, and the internal mammary lymphatic glands of the right side; and near here is found the entrance of the *ductus lymphatic dexter* into the subclavian vein. It is not a stretch of imagination to suppose that the enlargement of some of these glands, involving the enlargement also to a considerable extent of the adjacent tissues, may have impinged upon the subclavian vein, so as to have considerably obstructed the flow of blood through it—thus backing up the blood in the veins of the arm. And it is further entirely probable that this peculiar strained, swollen, and inflamed condition of parts beneath the breast may have more sensibly interfered with some portions of the brachial plexus, and in that way produced the irksome, ceaseless pain and aching that afflicted the right arm. The agony from cephalic pain also was so great during the swelling of the veins of the arm, that the idea of some obstruction in the subclavian vein, or the *vena innominata*, preventing the free return of blood from the head through the jugular veins, is not an unlikely one.

The veins of the arm have returned nearly to their natural size and functions. They are slightly dilated, but not corded or varicose.

4. There appeared, while the venous obstruction was greatest, an indolent swelling upon the lower and back part of the radius. This tumor was about the size of a large hazlenut. After threatening several weeks, and inflicting a great deal of

pain, the swelling became an open sore. It discharged but little pus. It was soon evident that the bone was implicated—small bony particles being discharged.

This patient did not present any local indications of diphtheria elsewhere. She was shrunk and prostrated throughout, but able most of the time to walk about the house.

It must be owned that the obstruction to the venous circulation in the arm, as well as the pressure upon the nerves producing pain there, might both have had their seat in the axilla, where the lymphatics were much enlarged. The cephalic veins being affected, as well as the basilic, the increased headache, and some considerations connected with the seat of the diphtheria itself, have seemed to me upon the whole to favor the idea that the nervous obstruction and nervous injury had their principal location farther on towards the heart.

The intervals of time and order of events described in this paper are approximations only. They are detailed from memory, and are tested by the recollections of the patient and her husband—persons of intelligence and veracity. And they are believed to be substantially accurate and trustworthy, for great diligence has been observed in recalling all the facts.

Art. 2.—Scarlatina.

By D. MAYER, of Charleston, West Virginia, delivered before the Kanawha County Medical Society, March 10, 1876.

Gentlemen—In addressing you on Scarlatina, I wish to premise that it is my aim to give you my opinion and experience of the disease, and not the opinion and experience of the different authors on the subject. I therefore hope you will give my subject, as handled by me, due consideration; retain what you consider good, and reject what you after due deliberation find to be erroneous.

To say the disease is produced by a specific poison, is to convey but a very vague idea of its nature. The term "Specific Poison," is doubtless well applied, because of the tendency in every case to produce the same phenomena of manifestations. Poisons, whether infectious or contagious, whether introduced into the system by inhalation or through other means, have affinity for certain points, organs, or tissues, through which the morbid impression is made; and from which

point emanates the diseased action peculiar to each kind of poison—as, for instance, the peculiar semina of typhoid fever seem to impress primarily the mucous membrane of the stomach and bowels. The sympathetic nervous system takes on readily the morbid influence, and we have consequently derangement of the principal organs, as also congestion of the bowels, with glanular difficulty, especially the mesenteric glands, which is doubtless owing to the local tendency of the poison; as also from the fact that a majority of those afflicted with the disease are of a rheumatic or strumous diathesis.

The poison producing cerebro-spinal meningitis, has an affinity for the cerebro-spinal nerves, and from that point is reflected to the nerves of organic life. We attribute the speedy death from this disease to the local congestion of the cerebro-spinal nerves consequent upon the action of this poison.

The poison of scarlet fever seems to affect the system differently from either of these. It is doubtless, like many other forms of disease, produced by a specific poison, a spore carried in the atmosphere peculiar in its nature, which possesses the power of reproduction. The formative period from the time the individual is exposed to the disease, is thought to extend from one to twenty-five days; usually from two to eight. The poison is supposed to be introduced by inhalation into the system, and is doubtless taken up by the blood and disseminated throughout the system.

Whether it is reproduced in the blood, or simply distributed by that current to be reproduced on other tissues, I can not say. It is obvious, however, that the vital forces speedily rally to expel the intruder, and the cuticle seems to be the chief excretory outlet of the poison. The circumstance that this and kindred diseases nearly exhausts the susceptibility of the system, and assures it against future attacks, is worthy of notice.

All the varieties of scarlet fever originate from the same specific cause, doubtless there are conditions of the system that modify its development. The severer epidemic forms proceed from atmospheric causes, vegetable and animal decompositions, and effluvia from damp and badly ventilated apartments. These furnish conditions for the development and spread of the peculiar spores, or infecting semina of the disease.

The milder type of the disease is owing to the absence of these peculiar atmospheric conditions, and also to the ability of the system to resist the poison. The anginose form attacks

those in a debilitated condition, produced either from constitutional causes, bad diet, or habits of living. Persons of the strumous or rheumatic diathesis are the most liable to the anginose variety.

The malignant form of the disease occurs like the anginose, mostly with those in a feeble state of health, and in a constitutional and physical condition unable to resist the disease. The probabilities are that the morbid influence is greater, or the resistance of the system is so feeble that the patient is overwhelmed with the poison, and the vital energies are so paralyzed that nature is incapacitated to sufficiently react against the disease, until the accumulated force of the poison renders it impossible for a reaction to take place.

Previous to the appearance of the eruption, the physician can not at all times ascertain the disease. There are certain diagnostic symptoms distinguishing it from measles, small-pox, and other kindred diseases; but there are many instances in which there is an obscurity of the premonitory symptoms, and it is not wise to advance an opinion before the appearance of the eruption. One symptom will serve as guide. The tongue will be covered at the edges and sides with inflamed glossy points, and these will be also more or less reflected over its entire surface. These are the *erectile papillæ* made prominent by the disease. As the disease advances, so in proportion they become prominent.

Some years ago, while living at Brownstown, after having experienced disappointment in the loss of a number of patients, I was induced to try Belladonna. My hopes were inspired in consequence of the peculiar virtues attributed to the medicine. The first cases recovered, and I began to think that there was a specific virtue in the medicine; but I soon found out that I must not rely too much upon its use. My present convictions are that the great majority of the cases will recover under judicious treatment, but that under some circumstances, and with a scrofulous or syphilitic patient to deal with, the best means and the best physicians will sometimes fail.

Scarlet fever requires more vigilance on the part of the physician, and more care on the part of the nurse than almost any other. The physician when he is called to a patient in the forming stages of the disease, should have him placed, if convenient, in a moderate-sized and well-ventilated room of moderate temperature. He should not be exposed to draughts of air, and should be kept as free as possible from excitement. If there is reason to suppose that the

stomach is deranged, it will be well to administer a gentle emetic or some gentle purgative. The feet should be soaked in warm water in which chloride of sodium and carbonate of soda have been dissolved, and should the fever run high this should be repeated. Drinks of gum acacia, or *ulmus fulva*, are advisable in all stages of the disease. A drachm of the chlorate of potassa may be dissolved in a teacupful of hot water, of which a child two years old may take one teaspoonful every hour, and older patients proportionate quantities. If the fever seems to be of a mild type, or not sufficiently advanced to indicate prompt measures, ten to fifteen drops of the tincture of belladonna may be added to a half-teacupful of cold water, of which give one teaspoonful every two hours in alternation with the chlorate of potassa. If the eruption is not favorably developing, mild diaphoretic measures should be employed, such as ipecac in small and repeated doses, together with foot baths.

In cases in which the circulation is exalted inordinately, or when the fever runs very high, and with a rapid pulse, *veratrum viride* may be cautiously employed in doses sufficient to subdue the urgent symptoms, but not enough to reduce the pulse too much, otherwise the eruption will not be readily determined to the surface, as capillary circulation will be too much suspended. The surface of the body should be sponged with an alkaline wash, especially if the fever is high; sponging the surface will also assist the action of the diaphoretic medicines.

When the eruption is well established, if the cuticle is highly inflamed sweet oil applied to the skin will afford relief from the aching and burning sensation so frequently experienced.

The physician should examine the throat, and if the patient complains of painful deglutition, or if symptoms of enlarged tonsils appear, salt bacon is a good application, and should be applied with a bandage over the head to retain it in place.

I am about to introduce to your notice, gentlemen, a remedy in which I have great confidence. If employed in the commencement, it will, I think, in most instances, so modify the disease that there will be few, if any secondary symptoms. It will in many instances arrest what would have been a severe case of the disease, and render it mild and easily managed. I was led to employ it because of the happy effect produced when I had used it in diphtheria, and because of the resemblance of the two diseases.

There is some analogy between the inflammation of the cuticle in erysipelas and that in scarlet fever, as also the patho-

logical effects of the two diseases upon local organs and tissues. Erysipelas inflammation often follows scarlet fever; both diseases require the eruption to be brought out and retained upon the surface, and both also require the vital forces to be sustained by nutritious diet and tonic treatment.

Iron possesses specific virtue in erysipelas, and is applicable in a wide range of asthenic diseases. The benefit to be derived from this treatment is more decidedly manifested in those children of a strumous diathesis, as also in all debilitated subjects.

The following is the formula :

R̄ Tinct. Ferri Chloride, ʒ iss,
Quinia Sulph., grs. viii,
Syrup Simp, ʒ ii.

M. S.—For a child four years old, one teaspoonful every two hours in a little water; in the interval of each dose give one teaspoonful of the following mixture :

R̄ Potassæ Chloratis, ʒ ii,
Aqua Bullient, ʒ iv.

The formula should be modified according to circumstances; some cases require less iron, others more; some less quinia, others more, and in some cases sweet spirits of nitre is a good addition. The tincture of iron diluted, in passing over the mucous membrane of the mouth and tonsils, acts as an astringent preventing engorgement of the capillary blood vessels of the parts.

Its introduction into the stomach together with the quinia, furnishes the blood and nervous system with an efficient tonic; thereby enabling the recuperative powers to withstand the influence of the poison, and the excretory organs to expel it from the system.

The chlorate of potassa assists by preventing an ulcerated condition of the mucous membrane of the mouth, and it also in a degree furnishes oxygen to the blood.

I have employed this remedy in my hospital practice during the late war, as well as in my practice since, and although I do not rely upon it in all cases, my confidence in it is strong. I am inclined to the opinion that the tinct. of chloride of iron in this disease as in erysipelas, possesses at least some specific controlling influence over the disease. In some few cases, the of the stomach patient seems not to receive the iron kindly; but I find that this difficulty arises from the repulsion of the patient

to unpleasant medicine, rather than because the stomach will not receive the remedy—at least this is so in the majority of cases.

If, notwithstanding all the efforts, ulcers form in the tonsils, astringent gargles and washes should be employed; sage, chloride of sodium, capsicum, and vinegar are good. Carbolic acid is better, and if the ulcers are deep seated, a strong solution of nitrate of silver—say 40 grains to the ounce of water—may be applied with a camel's hair brush. A solution of perchloride of iron is also excellent. During the entire period of the disease the patient should be sustained by easily digested and nutritious diet, and in cases of debility stimulants should be employed. Brandy, I think, is the most suitable stimulant; yet in some cases I have used carbonate of ammonia, which acted more prompt.

Thus I have given you my way of treating this disease, with the hope that some of my suggestions may be found upon trial to be worthy of adoption by the profession.

Art. 3.—Histories of two cases of General Cerebral Paralysis, and Post Mortem Appearance.

By W. H. DEWITT, M. D., Physician to Longview Asylum, Ohio.

CASE I. Joseph W——, admitted Sept. 30, 1874, aged 35; single; occupation, painter; native of West Virginia. First attack, duration supposed to be six days. Cause unknown. Has not been intemperate, not received any injury to head, not epileptic. Whether inherited or not, unknown.

Medical certificate says patient is in a high state of excitement, hilarious, talks of marriage, boasts of his riches and generosity. On admission, is a tall, powerfully built man, in good flesh; pulse 72 per minute, tongue clear, appetite fair. Is quite excited, continually gesticulating and arranging his bed-clothes; quite voluble; tells a story of sudden sickness while at work in a rolling-mill where he was employed; says he was forced to go to the hospital, and while there offended the Superintendent and was, as a consequence, sent here. Patient is incoherent at times, and has well marked delusions; says that he is engaged to a young lady, and that they are to be married on next Sunday; begs to have his discharge in order that he may be able to consummate his plans. Says that he has about

sixty dollars, which is quite enough to warrant marriage. Is very disconnected in his conversational attempts; wanders from one subject to another; walks away from his interviewer, forgetting that he is talking to him. Is peaceable, and not disposed to violence.

November 1. Has been excited much of the time, very delusionary, very restless, and often disposed to pugnacity. When excited is very loud and boisterous in demeanor and speech. Temperature above normal, evening temperature being greater than morning. Pulse 80, and of very fair volume. Bowels regular.

December 1. Has had several encounters with his attendants; lately when out in the ward, he slipped behind an attendant, whose back was toward him, and broke an earthen spittoon over his head, inflicting an ugly wound. Has been much of the time excited and very delusionary. Has the most extravagant imaginings of his power and wealth. Can do anything, no matter how impossible, and the mines of Golconda can not compare with his riches. He now shows evidences of muscular incoordination; speech is a little inarticulate, and gait unsteady. There is as yet no tremulousness of the lips or tongue and no inequality, of the pupils, both seem to respond readily to the influence of light. Temperature continues above normal, evening temperature always greater than morning. Pulse remains much the same, and is influenced somewhat by his mental condition. Is in fair physical health.

January 1, 1875. Does not get so violently excited as formerly. Very emotional; cries much of the time and always without cause; wets his bed at night and often wets himself during the day. Says he can not hold his urine; that he has gleet, and will never be cured until he can go and consult Dr. J——, in the city. Is quite fleshy.

March 1. Has delusions relating to wealth; talks of barrels of diamonds and of hundreds of gold watches. Gets angry frequently and threatens to kill all those who have to do with him. Orders, by very incoherent meaningless letters, suits of clothing and outfits of jewelry. Never talks now of his former affiance. His speech now is quite inarticulate and his gait wide and unsteady. Lips and tongue slightly tremulous. Temperature remains above normal; pulse, variable, but gradually losing force. Tongue coated centrally. Bowels inclined to be relaxed.

April 1. Attendant describes a spell of speechlessness, not accompanied by any spasmodic movements, and lasting only for a brief time. This occurred some two weeks ago. Since

then he has appeared more restless, and more foolish than usual. Muscular incoordination more marked than at last note, and now any attempt to articulate is accompanied with decided tremulousness of the lips. Still quite fleshy. Is failing mentally quite markedly.

November 16. Patient remained but little changed from last note until about a month ago. He was then suddenly seized with unconsciousness, fell to the floor and seemed entirely helpless, was placed in bed where he remained for two weeks. At first his pulse was rapid and full, breathing stertorous, pupils contracted. Urine was drawn for several days with catheter. He gradually rallied, and now is able to be about the ward, but is quite feeble physically, as well as mentally. It is with great difficulty that he is able to walk at all, and his mind seems almost obliterated.

November 20. Is very ill, unable to sit up; pulse very feeble, breathing labored.

November 23. Died to day comatose. It may be well to state here that during the whole course of the disease there was not noticed any disparity in the pupils. They both responded equally to the influence of light.

Autopsy—36 hours after death, suggillations on dependent portion of the body. Post mortem rigidity tolerably well marked. Body but little emaciated. Scalp bloodless; on removing the calvarium the membranes were found to be considerably congested; the vessels were distended with dark-colored blood. The dura mater seemed somewhat thicker and firmer than normal, and was adherent at some points to the concavity of the calvarium. The pia mater was oedematous throughout most of its extent; when pressed between the thumb and finger serum exuded from its meshes.

There was also evidence of recent and remote inflammatory action. This was particularly noticeable along the longitudinal cleft.

There were deposits of lymph at other points over the surface of the brain. Opacities of the pia mater was a noticeable feature. At the under surface of the brain the pia mater was adherent over a limited surface, so much so that when removed the brain substance was torn and lacerated. In cutting into the brain substance, the cortical layers, particularly the outer, seemed softer than natural, and the medullary substance harder and firmer than natural.

Throughout the white substance cavities or vacuoles of different sizes and shapes were easily recognized. One cavity was nearly, or quite, as large as a grain of wheat and not unlike it

in shape. The puncta vasculosa were very prominent throughout the entire medullary substance. Both lateral ventricles contained each about a half an ounce of light straw-colored fluid. Spinal cord removed; found upon examination to be atrophied and harder than natural, showing evidences of connective tissue change. Other organs of body not examined.

CASE II. Mrs. B——, admitted October 20, 1874. Aged 24 years. Prostitute; native of Boston, Mass. Number of attacks unknown. Duration of recent attack about one year. Cause unknown. She has not been addicted to the intemperate use of alcoholic drinks, tobacco or opium; has not received any injury to head, or been subject to epilepsy. The disease is not known to be hereditary. Medical certificate says patient's special weakness is manifested in her fondness for dress, tinsel and show; memory is much impaired; she thinks every man she meets is in love with her. She has not shown any disposition to injure herself or others, or to destroy clothing, etc. Her natural disposition is very quiet and peaceable. She has been under treatment for some time past.

On admission, patient is a woman of medium height, of good appearance, but poorly nourished. Fair complexion, light hair, and blue eyes. There is some hesitancy and thickening of speech. The following was gleaned from her. Three years ago she had an attack of paralysis confined to the left side (left hemiplegia). This condition lasted about two months. During the first week of this illness she was confined to her bed; subsequent to this she was able to be up and about. At the present time she exhibits some difficulty in locomotion, her gait is wide and very unsteady. When asked whether she experiences any difficulty in walking, she answers she does not. She evidently does not realize her condition. She expresses herself as feeling perfectly well; she says most *emphatically* that there is nothing the matter with her. Her memory seems weak, she has no idea of what has transpired in the past; her answer to questions are often unreliable and unsatisfactory. She manifests a special weakness in her fondness for dress. Her friends say she has always been very extravagant in dress, and that of late she has shown a disposition to squander clothing, property, etc. For some time past she has purchased articles without regard to value or expense, articles for which she had no use and which were valueless to her. She has never had, according to this statement, extravagant ideas of wealth, etc.

They seem to have no knowledge of her having had an attack of paralysis. There are certainly no indications at present pointing to trouble of that character. Grip of left hand seems

to be equally as good as that of the right. There is no dragging of the left leg. The difficulty in walking seems to be equally confined to both limbs. The tongue is protruded in a straight line, but is very tremulous.

There is considerable disparity in the pupils, the left being much larger than the right, and but little influenced by light. Heart's action feeble, pulse about 100 per minute and small. Extremities cold, appetite very good, bowels regular, tongue slightly frosted.

November 18. Has changed but little since admission; exhibits the same difficulty in speaking and walking that she did. She says there are times during the night, when awake that she is unable to utter a word. This is only an occasional condition. Temperature of body ranges from 99 to 100 degrees Fahrenheit, the evening temperature being always greater than the morning. Pulse 98 per minute, appetite good, sleep disturbed.

December 31. No change for the better, symptoms much the same. There still remain apparent inequality of the pupils, unsteadiness of gait and indistinctness of speech. There is a tendency to stupor.

March 18. Has gradually grown worse since last note. There still remains the same disparity in the pupils. Her speech is very indistinct, so much so that she can with difficulty be understood. She is able to walk but a few steps without falling. Has hallucinations of both sight and hearing. Sees her friends and hears them talking to her. Delusions are also present. She has had one or two epileptic seizures, remained in a semi-comatose condition for several hours after them. Temperature has varied but little; pulse 104 and feeble, tongue coated, appetite voracious, sleeps badly.

September 22. Since last note the symptoms have gradually grown worse and more unfavorable, from week to week and month to month. She is now in the third stage of general paralysis, mentally and physically a complete wreck. Her mental faculties are almost entirely obliterated. She is unable to stand or walk unless supported by an attendant. In consequence of her feeble condition she is obliged to remain in bed. The calls of nature are unheeded. Bowels and bladder are evacuated involuntarily.

The circulation is extremely feeble, as indicated by cold extremities and pallor of skin. Temperature 100 in the morning and 101 in the evening; pulse frequent and very small; appetite continues good.

November 13. Very feeble and perfectly helpless, unable to move unless aided by the attendant. She lies with the

thighs flexed upon the body, and with her head thrown slightly forward.

The *sterno cleido mastoid* muscles are little if any contracted. Back and nates are covered with unhealthy bed-sores; she seems to experience little discomfort from them, at least she manifests little evidence of suffering. She now lies for hours unconsciously grinding her teeth. Temperature remains little changed from last note. Pulse extremely feeble and frequent, not unlike the hæmorrhagic pulse. The cold, livid hands and feet clearly indicate the condition of the circulation.

December 3. She continued sinking, and died to-day of exhaustion.

Autopsy, 20 hours after death: Rigidity of the body well marked; body emaciated; back and nates covered with sloughs of various sizes, some are deep and broad, others are superficial and circumscribed; scalp bloodless; calvarium uniformly thick.

On removing the latter the following conditions were observed: There was nothing abnormal in the appearance of the dura mater; the pia mater infiltrated, *distinctly so* with serum throughout its entire extent. Opacities were noticeable along the longitudinal cleft, and at several points in the same locality; the membrane was slightly adherent to the brain substance. The pia mater was evidently weakened by the forcible entrance of serum with its meshes, as it was easily torn and broken down. In dividing the cortical substance, it seemed a trifle harder than natural; the medullary substance was markedly so. The knife in passing through it reminded one very much of the cutting of the fibrous tissue. The puncta vasculosa were very prominent, and scattered through the white substance were numerous small cavities, presenting the appearance of perivascular spaces, filled with the debris of broken-down blood vessels. In cutting into the thalami optici and corpora striata, the vessels were observed to be dilated and their walls very much thickened. They stood out prominently from the cut surface, and presented the appearance of hard tubes with open mouths. The corpora presented unmistakable evidence of both granular and calcareous degeneration. At several points the nerve tissue seemed to be entirely supplanted by these abnormal deposits. In passing the finger over the surface, a roughness was imparted to the touch, and at some points the sensation imparted was not unlike that of passing the finger gently over fine sand-paper. Numerous small cavities were presented in the medullary substance of the cerebellum. The pons and medulla oblongata were firmer than natural, and

the presence of abnormal connective tissue growth was readily distinguishable by the naked eye. This last condition was found to extend to the spinal cord. No other organs of the body examined.

*Art. 4.—*Hydroadipsia, and the Water Supply of Living Bodies, Clinically illustrated.*

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Delivered at session of the Licking County Medical Society, held in the city of Newark, 4th April, 1876, and published in compliance with a resolution of the Society.

Occupying no less than one-third of the entire surface of the world, present in variable quantities on the remainder; on the surface, as well as beneath it; in the atmosphere as vapor; ubiquitous and omnipresent in inorganic, and organic natures, constituting in weight an overwhelming proportion of all organic life, water, from its inorganic constituents, no less than its volume, as well as the functions it performs, demands far more attention and consideration than it has ever received at the hands of medical men.

Its presence is an essential condition of organic life, animal and vegetable, from the simplest cell, to the most complex animal or vegetable existence. Nor does its functions stop here, for it is no less important in the realm of inorganic nature.

Nor are its boundaries even thus limited. Human industries, agriculture, manufactures, commerce, transportation, art, science, literature, everything connected with life in its individual, social and collective capacities, is more or less closely connected with, and dependent on water.

It is Nature's great solvent, taking up and holding in more or less limpid solutions the hardest rocks, and the most elastic gases; as well as most of the metals in certain chemical states. Ever passing in vapor upwards from the earth's surface into the atmosphere, even when falling condensed as rain drops, or as

* A term proposed to express absence of water thirst. Adipsia, absence of thirst; Hydro, water, Water thirst absent, lost, paralysed.

crystals in snow. The stream is ever upward, and ever downward, varying from moment to moment as conditions vary, now as snow, again as rain, or dew, or mist.

No human body can exist without it, for either as water, or the elementary constituents of water, oxygen and hydrogen, it forms nine-tenths of the total weight of it at all times during life.

There can be no blood, no cells, no liquids, no solids, not a single tissue, texture, or viscus can exist without it.

Can it be possible, or probable, that none of what we call pathological conditions of life are not connected with, or dependent on the proper supply and relations of water to other parts of living human bodies? It seems to me such an assumption would fall very far short of representing the facts of life.

To illustrate that some human sickness is due to defective supply, or proportions of water, to individual life, allow me to place before you a brief history of a case about which I never was consulted, did not prescribe for, and yet was the unconscious instrumentality of relief to a very chronic sufferer.

Several years ago, while Col. John J. Douglas was Post-master in the city of Zanesville, he delivered to me a package of pamphlets, wrapper torn off, but held together by twine, extra copies of an article of mine published in a Medical Journal, illustrating the effects of water as a therapeutic agent, and asked me for a copy, which was readily given.

The incident quickly passed out of my mind, was forgotten, but I was destined to hear from it again in a very unexpected manner.

Last summer (1875), Col. Douglas called on me to tell me what had come of it. He became a sufferer from what he called an affection of the kidneys. Did not pass enough water from his bladder; and what he did pass was very highly colored, passed with more or less difficulty all the time, and sometimes with considerable uneasiness.

For this he consulted one or more physicians in this city, who prescribed for him, and he followed their instructions. Not finding any relief, he took some patent medicines, with no better success. Then he made a trip east, was examined and prescribed for in Philadelphia and New York, but with like results. He now ceased to take any medicines, having made up his mind that he could not get relief from them.

Two years since in looking over some pamphlets and papers, he came across the copy of the Medical Journal I had given him. In it he read my paper for the first time, having laid it

aside at the time he got it, to read at a more convenient season, and concluded its suggestions applicable to himself, and carried them into effect, by simply drinking water, sometimes hot, made palatable with salt; at other times cold, but mostly cold, in much larger quantities than he had done for many years.

In a week his kidney difficulty disappeared, and by keeping up the use of simple water he has been well ever since—in that respect as well as he ever had been in his life. He said he told me these things because he thought it was his duty, as well as that it was due to me to know them.

He said that during the time he had the urinary trouble he drank but little water, did not seem to want it; had no thirst, and, therefore, the fluids he did take consisted mostly of the tea and coffee drank at meals. He told me that he saw through his case after reading my paper, or least he thought he did, and commenced drinking water in quantity sufficient to supply the actual wants of his body, and got well immediately; and by continuing to supply his body with the quantity of water it required, he has remained well ever since, so far as the urinary difficulty was concerned. But still more, he was better in every way, and so far as I know has not needed the services of a physician since. And he was, when I last saw him in Zanesville, a very wholesome and portly-looking gentleman. I think he has been absent, as I have not seen him for several months.

From his account no very definite conception can be obtained of the probable pathology of his case, other than that it was due to deficient water supply to his body. It may be definitely assumed that there was no organic lesions existing, or he would not have recovered at all, under any plan of management.

Several years since I found my professional friend and neighbor, Dr. Ball, of the city of Zanesville, in bed, with most of the prodromata of continued fever; hot, dry and uncomfortable. His usually clear head, thick and dull, eyes injected, sick stomach, pulse and temperature above natural. I proposed a watery saturation, to which he rather mechanically assented.

He thought a goblet of hot water was enough, but I thought otherwise, and induced him, finally, to swallow, perhaps, seven goblets. But little came back by vomiting. From that hour the tide was turned, and his recovery was rapid, decisive and complete, without any other medication.

Only day before yesterday a gentleman from Barnesville consulted me, whose discomforts were mainly due to insuf-

ficient water supply of his body. He admitted that he never drank any water, as water, at all. Never took any fluids, except tea and coffee at meals, and of these combined, thinks he does not drink a pint in twenty-four hours. He passed very little urine, very high-colored. His food generally hurts him after eating, and he was seldom free from a burning sensation in the region of the stomach, and in front of the sternum. My prescription for his case was Bi. Carb. Potassa, in large watery dilution; several times a day, when the burning sensation was present, and an infusion of prickly ash bark after meals. I met him after dark two days later, and he told me he was much better in every respect.

I need not, however, multiply individual cases, though I could supply many illustrative cases of much personal discomfort, and actual suffering, from insufficient water supply.

A careful study of the uses and necessities of water in a living body can hardly fail to arrest attention. Thus, all food must be dissolved in water with the aid of acids, alkalies, or organic principles, as pepsin, etc. There can be no nutrition without this preliminary solution in water. Nor, on the other hand, can matter in effete conditions be conveyed out of the living body only as it is held in solution, or kept more or less soft, with water, as in the feces. The tendency of complex effete matter is to crystalization, in the absence of sufficient water to hold it in solution. Concentrated urine soon throws down what is called a sediment—that is, crystals of various chemical composition—salts of ammonia and lime. Stone in the bladder is an unmistakable instance of the crystalization of the effete matter in the body. What happens in the bladder in gross and palpable quantities, can certainly happen in the interstices of any of the soft tissues. It seems to me that that is the real pathology of the states known as “bilious,” professionally, as well as popularly. There are often such cases which do not respond to what I call the “dry treatment,” by pills and powders, which improve with wonderful rapidity at watering-places, under thirty to forty tumblersful of weak saline solutions, natural mineral waters, per day. This is emphatically the “wet treatment.” I have many reasons for thinking that for such cases the purer the water the better for the patient, provided the body is kept saturated day after day until all dead or effete matter is removed.

Consider, again, if you please, the actual uses of water as a lubricator in living bodies. Each separate muscle, ligament, tendon, etc., requires to be lubricated, not alone in its bulk, but each fibre in muscle, each mesh in connective tissue, each

special histological element, or structure, in viscuses, must be lubricated. And Nature's lubricating material in living bodies is mainly water, holding in solution some salts, and albuminous compounds.

Four days since I visited a lady confined to bed, feet somewhat swollen, very painful when moved, complexion exceedingly sallow, no appetite, pulse not much accelerated, but small and thready, with a temperative barely half a degree above natural. I placed her feet in cloths wet with warm water, gave her small doses of calomel, $\frac{1}{2}$ grain, three times a day, and a large volume of saline solution, epsom salts, etc. Here was a living body, with nearly as much dead matter as living matter in it. The tissues of the extremities needed lubricating badly, and I could do it more effectually by external applications of water than by internal applications alone. In the continuous bath, the object was speedily accomplished, and to-day they are discontinued as being no longer necessary, and her general condition keeps pace with the improvement in her extremities. I apprehend a full recovery of her ordinarily fair complexion will occupy a month, or more, though three-fourths of the time she will be able to go about more or less. Had she a steady temperature of 100 to 102°, her recovery would be more rapid. But her temperature remains altogether natural, so that her full recovery will be more tardy.

Consider, once, more that water is all the time escaping from living bodies, by the skin, from the lungs, and into, and from the bladder. The quantity lost in other ways than through the bladder must amount to several pounds a day. Add to this the twenty to sixty ounces from the bladder each 24 hours, and the waste of water is seen to be very considerable.

Is it probable that each and every human being supplies this demand properly every day? I think not, for I find in actual practice many who do not, and suffer in many ways for their neglect.

When it is not duly supplied from the exterior, it has to be made in the interior of the body, from any available material, to make up, as far as possible, for the deficiency. It is probable some portion of the deficit is supplied from the ingoing atmosphere at the lungs, as well as at the cutaneous surface; thus reversing the order of nature. Some is undoubtedly made during the retrograde metamorphosis of the tissues, as they are wasted in the performance of functional duty. But a still larger proportion is made from other available material in the body. Oxygen, introduced in the respiratory process, as well as in food, is made to combine with the hydro-carbon contents of

the colon, or taken from whatever source it can be had, to form water.

The failure on the part of living beings, and I speak, and have in my mind as a central idea, human beings, but I think the general principles underlying apply equally to all organic life, animal and vegetable, to properly supply the wants of their bodies with water, entails burthens on their organic systems which are sure to be felt, sooner or later, at some local point, as a so called-disease. And generally in derangements of nutrition—a prominent feature of all so-called chronic disease—though no special form of ailment results, entitled, according to established professional usage, to be ranked as a distinct “disease.” And it is no part of my present purpose to identify any new so-called disease. They are far too numerous already for the good of either physicians or patients. They do not exist in fact, or nature, but are the out-growths of scholarly refinement and classification—in a word, they only exist in the minds of patients or practitioners.

Defective water supply must contribute no little towards the modifications of structure, which underlie all so-called chronic disease, and do something towards exaggerating the changed functions which proceed from them in consequence of changes of structure.

What has seemed to me most remarkable in those suffering from deficient water supply, is their unconsciousness of the cause of, at least a part of, their discomfort. They say they do not want water, and therefore do not drink it. And I have found no little difficulty in getting them to drink water, as water, notwithstanding they admit they feel better for it.

In searching for the cause of this utter loss of the sense of thirst, I have been unable to reach any other conclusion than that it is due to a paralysis, so to speak, of the sense of thirst; or perhaps, more properly, sensation of thirst. The condition it seems to me requires a term to express it, I therefore propose to call it *Hydroadipsia*, absence of thirst for water; water thirst absent, paralyzed, lost. *Adipsia* means absence of thirst; but it does not express absence of thirst for any particular fluid. Thus, in my own person I have an absence of thirst for alcoholic beverages; have, in fact, as much aversion to them as some of my hydroadipsic patients have for water. It is, therefore, no cross, or no merit for me not to be a dipsomaniac. It is to limit the term *adipsia* to absence of thirst for water that I prefix *hydro* to it; and the meaning of the term from its derivation, is exactly what I desire to express, absence of thirst for water.

Coffee and tea tippling has risen to the dignity of a first-class vice in most civilized countries—England and the United States being the largest consumers in the world—and contributes in no small degree to restrictions on the necessary water supply to those using them moderately. Limiting, as they do, the speed and extent of molecular transformations of material in living bodies, they necessarily, and unavoidably, lay the foundations for many minor derangements of structure and function.

In prescribing for such cases—cases of hydroadipsia—if they are in fair flesh, I find it best to give largely of weak saline solutions, as bi. carb. potassa, chloride of ammonium, citric acid, and sometimes lime water; or, if badly nourished, weak solutions of muriatic acid, or elixir vitriol, with often small doses of calomel, half grain, three times a day, or every six hours, until the speed of molecular transformation is advanced; then, weak infusions of prickley ash, black alder, poplar, or some other barks with peculiar bitter principles; sometimes combining with them valerian. The purpose is to keep up the water supply, rather than introduce “stored up force” in medicines, unless there exists special indications for them.

Most persons laboring under hydroadipsia—deficient water supply of their bodies—who follow my instructions for any length of time get better, and remain better until they allow the water supply to fall short again.

It must not be concluded, therefore, that chronic sufferers from hydroadipsia are permanently cured of all their ailments by the means I have pointed out. The difficulty in keeping up a proper water supply is too great for confirmed hydroadipsics to overcome without continuous effort, and realizing that a proper water supply is an essential condition of personal comfort and health.

But too large an amount of good can be done in the way, and by the means I have pointed out, to be neglected in the professional management of such cases.

In the management of acute complaints, particularly of fevers, the old traditions of limiting the water supply under some vague idea of its doing harm, particularly when the stomach is irritable, still lingers to a considerable extent among the people, and is by no means extinct even in the professional mind.

I attended in January last a case of pneumonia, in which the water supply had been limited, though the patient urgently demanded it, because there was occasional sick stomach. This

was prior to my having charge of the case. Almost my first proceeding was to give the patient a watery saturation, so to speak, by allowing him to drink what he thought satisfied him, then by coaxing getting nearly as much more swallowed; very little came back by vomiting, the want was cancelled, and the water supply was kept up by lemonade during the remainder of the time he was under professional notice.

I often give water as hot as it can be swallowed in large volume, say one to three pints, or more, at a time, to flood, or saturate the system. In doing so it is better to make it palatable with common salt. It should be strictly boiling, and sipped from tablespoon, or small ladle, blowing each portion with the mouth until it can be swallowed without scalding. As it is thus introduced very gradually, a very large amount can be taken without sick stomach, or sense of fullness. It is absorbed in the blood-vessel system, the volume and frequency of the pulse becoming more natural in a very marked degree, followed by a glow of warmth all over the cutaneous surface, which is, in many instances, speedily bathed in perspiration. The surplus not needed by the system soon escapes by the skin, or through the kidneys.

Thus, three months since I found a gentleman something over fifty years of age with pulse hardly countable, exceedingly thready, surface and extremities icy cold, intellect confused, complaining only of weakness and oppression in the chest, and; as it seemed to me, in the utmost danger. He must be got warm, and his circulation must get fuller and slower before he could be considered safe. I knew of no safer and speedier way than flooding his system with hot water. But there was none in the house; and though it is said the "watched pot never boils," it did boil at length, and my patient began to sip from a tablespoon, protesting all the time he did not want it, could not take it, and did occasionally refuse it. But I persisted, and got something over a quart swallowed; in the meantime having his feet in a warm bath. From being a mere thread at the commencement, the pulse had risen to fair volume, and had fallen in frequency to near the natural standard; he felt better, was laid on a lounge, and in a little while was asleep. When he awoke, two hours later, he was apparently altogether relieved, but took during the night three half-grain calomel granules, which moved his bowels next morning, and he resumed his usual business activity. In the evening he had a galvanic application, feet in hot water connected with carbon pole, zinc pole at back of neck, spine, and chest.

This gentleman told me he drank very little water as a general thing, did not feel any want of it, relied mainly on tea or

coffee at meals. My impression was, at the time, that he had brought about his condition by deficient water supply. I explained to him the necessity of more water, and asked him to drink water as water. He has not been sick since.

With free heat and water—water at the highest temperature it can be swallowed—made palatable with salt, it seems to me I do a large amount of good in many apparently diverse conditions, though the central fact runs through all of deficient water supply. I think I relieve more headaches this way than by all other means combined.

It has the objection of consuming physician's time in giving it, as patients left to themselves rarely ever take enough to do them the most good in the shortest time. The fact that life momentarily depends on molecular changes of matter can not be explained to them so that they can understand it; and so fail to comprehend how it can do them good when they do not feel the want of it. I generally have to remain with any patient for whom I prescribe it, and give it in person.

The results of my experience, observations, and inquiries on this subject may be stated as follows:

1. That a water supply, with limits not at present well defined, is a necessary condition of healthy human life, probably depending on the extent of molecular work done; more work, more water; less work, less water; but not made known in many cases by the sensation of thirst.

2. That a large number of human beings seemingly have not, or if they ever had, have lost the sensation of thirst for water, and therefore fail to take the water supply required for the healthy performance of the various functions of their bodies, and constitute a class of true hydroadipsics.

3. That a prominent feature of professional investigation into the nature and causes of so-called chronic diseases, should, in each individual case, include inquiries into the water supply of their bodies; and if found deficient, make adequate provisions for supplying it, either by water as water, or weak saline solutions, or vegetable infusions.

4. That like defects in water supply in acute affections, especially continued fevers, frequently occur, and should receive professional attention.

Art. 5.—Bilateral Chorea, occurring in a General Paralytic.

By W. H. DEWITT M. D., Physician to Longview Asylum, Ohio.

Fanny H—— was admitted into Longview Feb. 27 1875, aged 34; occupation, housewife; native of Ohio. Duration of attack previous to admission four months, this being the first attack of the disease. Probable cause, *intemperance*.

This patient on admission, was thought to be an ordinary case of mania with incoherence. She was very voluble, talked almost constantly in a disconnected and incoherent manner. The only physical symptom pointing to general paralysis, was inequality of the pupils, the left being much larger than the right, and sluggish. She had no delusions of greatness, and there was nothing peculiar about her speech or gait. She remained little changed until some-time during the month of April, when she began to show signs of improvement from day to day, and was finally permitted to visit her home on trial, as she was thought nearly or quite restored to health.

At this time the disparity in the pupils had almost entirely disappeared. She remained out of the asylum some three or four weeks, and was then returned in much the same condition as on first admission, with the same inequality of the pupils.

She remained little changed, with the exception that her mind seemed to be growing more enfeebled, until August, when she began to present evidence of incoordination of speech and locomotion. From this time forward she rapidly grew worse, and at the present writing, Jan. 14, 1876, she is far advanced in the second stage of the disease. Some three days ago, she developed bilateral chorea. This condition is more marked on the right, than the left side, when given a vessel in her right hand containing fluid, the contents is thrown out at once. She is unable to convey food to her mouth by either hand. When seated there is no appreciable movements of the lower extremities, but when an attempt is made to walk disordered muscular movements are at once inaugurated. This is more noticeable in the right than the left leg. There is a slight twitching of some of the muscles of the face, not, however, well marked. A noticeable feature of the case is the constant jerking of the head. This becomes so violent at times that the whole body is thrown into a state of commotion. All of these movements are diminished during sleep but not entirely suspended. She complains more or less of pain in her upper jaw. I am not aware that these conditions were preceded by a congestive attack.

Art. 6.—By Alcohol as an Anæsthetic.

New uses of old remedies we see constantly exemplified, not only in bromide and iodide of potassium; quinine is no longer administered alone as a tonic and antiperiodic, but finds its place among the sedatives, if that which lessens the temperature and slackens the heart's action, should be called a sedative. This we should heartily deny, and place it again where it belongs, as a stimulant; that is producing a healthy standard by its equalizing effects. Bromide of potassi is also an equalizer by stimulating or raising the nervous system to a healthy condition by allaying irritation. But last and not least, we have alcohol taking a new position in the ranks of remedies with new effects. Not long since it first took its place as a sedative, not only in continued fevers, but others, especially pneumonia. During the late war I learned to administer it in both classes of disease, with marked benefit, especially in the latter. A patient with full bounding pulse, would be placed on whisky, say a tablespoonful every half hour until the pulse would be reduced from 140 full and bounding to a normal, or nearly normal condition in eight hours. And to-day I predict that it will rank *first* as an anæsthetic by the close of the next decade. I have long been using it in this capacity, and am gradually learning to appreciate it more and more, until I have come to depend upon it almost entirely in my surgical operations, and shall be able to demonstrate its effects fully, I have no doubt, in my next capital operation. I have recently amputated a finger with entire unconsciousness on the part of my patient where no other anæsthetic was used. In less than two years past I saw its effects on a young lady, taken for the extraction of teeth, carried to such an extent, that four were removed without the movement of a muscle, the eyes remaining fixed all the while. The condition was such, that all the limbs might have been amputated without consciousness on the part of the patient. One can but wonder with amazement and horror, at the thought that a few years since, patients were mutilated and tortured with the knife, many times lashed to the table, while the operator proceeded amidst the moans and writhings of the unfortunate, bemoaning the deficiency of chemistry, in not furnishing an anæsthetic that would place his patient in a condition beyond that of consciousness, and when that most deadly of compounds, chloroform, that which has carried off scores suddenly and unwarnedly was introduced, but a few years since, the whole civilized world cried out for joy

"*Eureka*." But stop and stand amazed when I proclaim that since the days of "*Noah*" there has existed a sure and comparatively safe remedy in the hands, or within the reach of every household, that was daily producing the very effects within the observation of all, so much desired. Yes science and reason remained blindfold to its practical application; and while the surgeon stood over his patient, writhing with agony under the knife, there was within an easy stones throw, no doubt, and in many instances within the very range of vision, those in a condition whom the knife could have made no impression upon, and for whom no one felt the least anxiety as to their chances for recovery. I have gradually increased my alcohol and diminished my chloroform, until for years I have administered in many instances, not to exceed a drachm of chloroform in amputation of the extremities: and while I have not had a single bad result from it, I have come too near for comfort; and each day of my experience I have grown more and more cautious of its administration, and am almost ready to say to-day I have no further use for it. Six years ago at our meeting at Charleston, Illinois, there was a letter read from Dr. E. A. Clark, a member of this association and a prominent physician of St. Louis, recommending its free use in parturition, and spoke of its general use in a reckless manner. I stated to the late Dr. Herrick of Kansas, Illinois, on that occasion, that Dr. Clark would either kill himself or some of his patients in less than five years with chloroform. In less than three years he died from its effects, administered by one of his students for the reduction of hemorrhoids or prolapsus ani. The one half the fatal results are not recorded, yet they are not of unfrequent occurrence, and I am not quite sure, that if all was told, the record of our own cemetery would not tell of one that occurred in this city in the last twelve months. Yet whoever heard of a patient dying from the effects of narcotization from alcohol. Not only is it safe in itself, but are we not aware that it is a remarkable preserver of life? Under circumstances that would have been surely fatal to the sober, have we not all been convinced that the intoxicated have been saved, not only in cases of exposure to hardships and vicissitudes of weather, but also from accidents of the most perilous nature. Last winter during the extreme cold weather, a young man, not in the habit of drinking to excess, became very drunk. After wandering around the city until 2 o'clock in the morning, went to the engine of one of the out bound freights, and wanted to ride. After being refused, nothing more was seen of him until the early passenger train, which

followed an hour and a half later, found him lying by the roadside, midway between stations, some ten or twelve miles from town, the clothes entirely stripped from his back, from his neck to the sacrum; his left leg crushed near the knee, one wheel of the car having evidently passed over it. He was otherwise bruised and lacerated about the head and body; notwithstanding all this, he underwent an amputation of the thigh and lived until the following morning, twenty-six hours after the receipt of the injury. No one can scarcely doubt the fact, that with the temperature at 15 degrees below zero, his body exposed as it was, that he could not have lived for two hours without injury, or again that it were possible for him to have endured the injury so long under the most favorable circumstances of weather, but for the effect of the alcohol; yet, with all these facts staring us in the face, I have no doubt the profession will be slow to make the acknowledgment so far as to put it to practical use, in the face of popular prejudice, notwithstanding the fact that all are ready to acknowledge that it is not the *extreme* drinking that gives the appetite, but rather the tipping. With these scattering suggestive remarks and experiences, I will proceed to give a few cases of interest, in connection with results attained through alcohol as a narcotic and anæsthetic.

Oct. 16, called to see Harry E——, 11 years of age, who had received an injury by running a nail in the bottom of his foot some ten days previously. The wound had healed to all appearance, so that no concern was felt about it until the day previous to my being called, he commenced complaining of a stiffness of the muscles of mastication, with chilly sensation down the back. He was allowed to remain out of school during the afternoon of that day, and the next morning was unable to rise. Several physicians were called during the day, all pronounced it an incurable case of lockjaw. I was called late in the evening, there then being considerable opisthotonos, the jaws closed firmly, with regular convulsions about every three hours, I confirmed the diagnosis of the physicians, but suggested as a last resort and "*forlorn hope*," the severance of the posterior tibial nerve, with the use of chloroform, and stated that if possible to get him fully under the influence of whisky, and keep him there, that there might be some chance of breaking up the difficulty already established and thus cure the patient. All the cases that I had seen reported, had either depended entirely on internal treatment, to break up the disease, which of course can not be done while the cause remained: or on the other hand the injured limb was removed, without

energetic treatment for the difficulty, already established at the base of the brain. But by thus cutting off the communication of the injured and offending part from the brain, and then applying energetic treatment to control the disease, that there still was hope of saving my patient, and I reasoned thus, if I could control the system with whisky, its effects would be less injurious to the secretory organs, interfering much less with digestion than opium or any of the other narcotics that had been used in this class of cases, and that it could be continued longer, at *least* sufficiently long to break up the dyscrasia. My plans were fully explained to the friends, who consented to the course of treatment suggested. The operation was performed at 9 A. M. October 17, the morning after my first visit. The convulsions had gradually increased in frequency during night, so that at the time of operating they were recurring every three to five minutes. The nerve was severed at the ankle about two inches above the mallioli; and during the relaxation of the system from the effects of chloroform, a full dose, about two ounces of pure Scotch whisky was given, with directions to continue a tablespoonful every twenty minutes until patient was thoroughly under its influence. I called during the afternoon and found the muscle still firmly contracted. There was considerable spasmodic twitching of the muscles of the shoulder, with slight convulsion, also some difficulty of swallowing, owing to spasms of muscles of deglutition. I administered chloroform and gave large doses of whisky, about three ounces to be continued as before. I saw the patient in a few hours and found him much relaxed and sleeping. I visited him three times a day, continuing the whisky in tablespoonful doses, to the amount of about one and a half pints a day, for two weeks, the opisthotonos continued, the body being bent like a bow, the heels toward the occiput. The mouth could be opened about half an inch so that food was administered with little difficulty. Whenever the quantity of whisky was diminished the symptoms became worse; on the fifteenth day there was slight return of spasms of the muscles of the shoulder, with aggravation of all the symptoms. I gave it as my opinion that the nerves had united and found on pricking the bottom of the foot, that there was *decided* sensation. I again administered chloroform and severed the nerve, this time removing about half an inch, and continued whisky. From this time the patient continued to do well until the 14th day after the second operation, when the whisky was gradually diminished. The opisthotonos had begun to yield, and at the close of the third week after second operation,

and just five weeks after the first symptoms of disease appeared, the patient was quite well. I am fully convinced that the whisky was the only remedy in this case that could possibly have answered the purpose, and that it did effectually control the nervous symptoms there can be little doubt, as the patient invariably showed symptoms of return of the convulsions when it was not administered: and that the severance of the nerve was effective was proven, by the aggravated condition when it united after the first operation, and decided improvement after the second. This was my last case of tetanus, consequently I have had no other opportunity of testing my treatment, but have no doubt that in the majority of cases it will prove successful.

Robert C——, aged 28; while coupling cars during the extreme cold weather, January 14, had his left hand caught between the bumpers, crushing the hand, especially the thumb, completely. Three of the metacarpel bones were comminuted. My partner Dr. M——, was called and dressed the injury with light dressings. I saw the case a few hours later, found the above condition existing. The thumb sloughed in a few days to a point midway between first and second joints, in fact we much expected the whole hand to slough owing to the low state of vitality caused by the extensive injury. There was a slight arterial hemorrhage from time to time, and about the eighth day we became conscious that we should have secondary hemorrhage, of a serious character. On the tenth day was called in great haste and found the blood issuing from an opening at the base of the thumb, in quantities which convinced us that the deep palmer arch was divided. I made compression over both radial and ulnar arteries; it being late in the evening, I preferred to wait until daylight before proceeding to ligate. We returned next morning, removed the dressing whereupon the hemorrhage became profuse. I introduced my finger through the opening at the base of thumb and found the ends of the bones denuded of periostium, with extensive clots diffused through the tissues; the parts were in such condition owing to the swelling, induration and extravasion of blood, that it would have been impossible to ligate at point of injury. There was nothing left in our opinion for us to do but to take up both radial and ulnar arteries immediately above the hand. The patient was advised to drink freely of whiskey, which he did, both before and after our arrival, on the morning of the operation, to the amount of about one pint. Dr. M—— suggested that we send for more chloroform, as I had but about two drachms, I assured him there was quite enough, but finally consented to

send for more. We proceeded to administer by the paper funnel with small cloths inserted, in less than three minutes the patient was fully anæsthetised and I proceeded to ligate, first the radial, which was soon accomplished, and then made an incision over the region of the ulnar. Owing to an abnormal branch which I cut and had to ligate, the operation was delayed, and when next I felt for the pulsation, failed to find it, nor could I detect the least pulsation after several minutes search. The patient had been under the influence of chloroform for probably half an hour and I am quite sure not to exceed a drachm had been administered. We withdrew the the chloroform entirely, with a view to allow the patient to come from under its influence, hoping to be able to find the artery through its pulsations, which we had reason to suppose would be increased. This was the result in about fifteen minutes, when we proceeded to take up the vessel by cutting through considerable cellular tissues and enlarging the skin opening, the vessel was found and promptly ligated without farther use of chloroform. The hand was bandaged lightly and sacks of hot salt ordered, to keep up artificial heat. We at this time entertained but little hopes of saving the hand as the injury had been so severe that sloughing of the thumb had already taken place as above stated, and the hand presented a very low state of vitality. Notwithstanding all this the patient had a speedy recovery without further difficulty of any description, under the use of hot salt sacks, charcoal and yeast poultices. There are two points of interest we consider in this case, the remarkable preservation of the hand after the ligation of the arteries, when there was so extensive contusion and laceration of the tissues; and again the small amount of chloroform used in the first part of the operation, and the entire absence of its use in the latter; the patient did not complain of pain from the operation, and had but little recollection of it afterward. I think this case serves to demonstrate the fact that whisky as an anæsthetic, leaving the other functions, especially that of the heart, in a more normal condition than the chloroform, as proven by the strong pulsation after the chloroform was withdrawn.

Was called May 9, to see Mrs. B——, aged 22 years; weight about 85 pounds; highly developed nervous temperament, with, I might say a general marasmic condition of system. Found a small lobulated, slightly elastic tumor opposite the eighth costal cartilage, left side, about the size of a Guinea's egg. The integument was slightly thickened, in fact there seemed to be an hypertrophied condition of the surrounding

tissues, making the outlines of a tumor a little difficult to trace. She informed me that three years previously she received an injury of the part by falling with her weight heavily upon a chair post, causing a slight inflammation and swelling. This seemed to disappear almost entirely, so much so that little attention was paid to it, for nearly two years. Commenced growing perceptibly after this time, with some tenderness and pain for the last three months, in fact there was some general uneasiness or soreness of the whole of this side of the trunk. Says mother died of phthisis pulmonalis nine years ago, after a lingering illness of several years, in fact was always of frail constitution like herself. There was no enlargement of the glands, nor had there been during childhood or after life anything to indicate tubercular or cancerous diathesis. I was inclined to attribute the soreness of the part to pressure of the clothing, the tumor being situated immediately under the belt, and the pain in side complained of as merely sympathetic. I advised the removal of the tumor and appointed Sabbath morning, May 16, at 10 A. M., as the time; and directed that two ounces of brandy be taken at 8, 8½, 9, and 9½ o'clock. We arrived at 10 o'clock and found patient sleeping, and quite unconscious. Pulse slow and full; temperature 97 in axilla; proceeded at once to remove the tumor by making a free incision through the integument, cutting slowly and cautiously so as to examine the tissues through which I was cutting, from the fact that I was not quite satisfied as to diagnosis. The feel not being just like a fatty tumor, the opinion to which I was inclined. On reaching the neoplasia I found it slightly adhered to surrounding cellular tissues imbedded in adipose. The tumor was regularly lobulated the lobules being about the size of a hazel nut. The adhesion could be easily accounted for by the inflammation established through pressure. I punctured one of the cysts, the walls being thin and tense, from which flowed a transparent jelly like fluid of small quantity. I soon punctured another of like nature when I became more cautious. The adhesions were slight though sufficient to require the use of the knife during every stage of the operation. I was at least fifteen minutes in removing it but found no trouble in its separation from surrounding tissues. The patient moaned and talked unintelligibly. She vomited once during the operation, as she had done once or twice before our arrival. The wound was closed and restoratives ordered. I called the next day and found her sitting up feeling quite well. She partook of quite a hearty supper in the evening after the operation, the effects of the alcohol having left her by six o'clock, after a

healthy sleep of three or four hours. She ate a hearty breakfast next morning, and was entirely clear of headache or unpleasant feeling of any description, with a thorough repugnance, as she assured me for whisky. She declares that she has no recollection of the operation, and is quite sure she suffered no pain at the time. I find on close examination that the tumor is evidently calloid, whether of a benign or malignant nature there is some reason for a doubt. It answers to Gross' simple calloid, and Paget's *cartiliginous calloid*. I have preserved the tumor in glycerine for the inspection of the society, thinking it would be of some interest, as there seems to be some doubt in the minds of pathologists as to their true classification. As to the propriety of the use of alcohol as an anæsthetic in this case, I am quite sure there can be no doubt. No physician would have felt justifiable in the administering of chloroform to one of her temperament and frail condition. I could cite you to other cases where I have used alcohol to various stages of intoxication, in my surgical operations, but time and the purpose of this paper will not permit. I have brought this much before you, for the purpose of bringing out the views of, and obtaining an expression from the various members of the society upon this, as I deem it a much important subject. I have been investigating the matter in my own feeble way, and have conscientiously come to the above conclusion. But I am still open to conviction, and shall be happy to hear from all. I hope to be able at some future time to give you a full and more satisfactory report of my investigations in this direction.

*Art. 7.—Empyema Complicated with Pneumothorax;
Caused by a Diagnostic Error—Recovery.*

By LEON J WILLIEN, M. D., of Terre Haute, Ind. For the *Æsculapian Medical Society*, Illinois.

A rare case of empyema laterly complicated with pneumothorax, caused by a diagnostic error.

George D——; aged nineteen years; bilious-nervous temperament; of a delicate constitution; dark complexion; of medium size, and a printer by occupation. Had as far as one could ascertain no hereditary taint to either a scrofulous or tuberculous diathesis; notwithstanding that his features and thora-

cic structure may lead us to suspect the contrary. Was taken ill about two and one-half years ago with pain in his left side followed by a chill, oppression about the chest, and a high fever, with a dry hacking cough; which description of the above symptoms led us to suspect that it was a case of pleurisy of the left side, which through oversight or carelessness, we hope not ignorance, of his medical attendant, passed unnoticed, and finally terminating in a well-marked case of empyema. No chance of escape having been given to the pus, it gradually made its way through an ulcerated point in the pleura, between the fifth and sixth intercostal space, diffusing through the outer cellular tissues and the skin, forming, as was supposed, a diffused congestive abscess. The engorgement of the side and fluctuation, revealed to his then medical attendant that there might exist pus underneath.

The most superficial points were lanced, and a large quantity of pus then escaped. From that day on there remained a fistulous aperture, with a constant discharge of thin grumous pus of greater or less quantities, which daily assisted in breaking down what little vital power was left the poor sufferer. After fifteen months he changed physicians, and fell from Charybdis into Scylla. After three months under treatment of the latter he called at our office for advice, making just eighteen months from the date of his illness; this was on the 28th day of May, 1874.

His appearance was as follows: Body frail and emaciated; features pale with expression of anguish; nostrils dilated; profuse clammy sweat all over the body; lips pale; conjunctiva colorless; in fact a general marasmatic appearance. Tongue slightly coated and pale; digestive organs good; no abnormal thirst; kidneys and bowels act normally; sleeps only part of the night; pulse weak, depressible, 100 per minute but regular; has orthopnœa, and moves on with a staggering gait; cervical ganglia somewhat engorged; complains of sharp pains through the left, middle, and anterior parts of the thorax. Upon inspection we found the following interesting points:

1. A well-marked depression of the thorax on the left side, which by measurement showed a difference of two and a half inches less.

2. Dullness on percussion from the diaphragm upwards to the fifth rib, inwardly to the center of the sternum, and posteriorly to the spinous process.

3. The heart is pushed entirely to the right side, where its point is felt between the fourth and fifth intercostal space, a little below the nipple; its action appearing weak and sounds distant, without any valvular troubles.

Auscultation disclosed a complete absence of the vesicular murmur, well-marked tubal respiration, with bronchophony, during cough a few mucous rales were disseminated through the whole lower portion of that lung; its apex being free from direct irritation; the right lung being healthy.

5. Between the sixth and seventh intercostal space, about four inches from the sternum, there were three fistulous apertures, two of which were then closed. The one yet open measured one-eighth of an inch in diameter, discharging great quantities of air and a curdy, thin pus, exhaling a most fetid odor, discharging over eight ounces during twenty-four hours.

The air escaping led us to believe the existence of a communication with the bronchial tube, a portion of the pulmonary tissue being broken down. By pressing the finger over the aperture, making the patient close his nostrils and mouth, he could not breath. As soon as we removed the finger from the opening, a rush of wind could be distinctly heard resembling respiration and expiration. Then again close the fistula and respiration continued through its natural passages. These were evident symptoms of pneumothorax. The cavity we explored with a small bougie. Its inner surface was rough, and pulmonary or posterior part sensitive to pressure, and about two and one-half inches from the opening, vertical diameter about four inches, and transverse six inches.

Our late and much regretted friend, Dr. Milligan, of Ohio, and Dr. Mitchell, of this city, saw the patient with us, and expressed their fears as we did, that the prognosis might prove fatal, he being nearly exsanguine.

The course of treatment indicated was: 1. To reconstitute the depraved condition of the blood; 2. To correct the fetor of the sack, and diminish the profuse secretion of pus, and favor granulations of the surfaces affected.

Internally we ordered:

℞ Pancreatin,
Pepsin,
Sub. Nitr. of Bismuth, $\bar{a}\bar{a}$ grs. iv.

M. Repeat three times daily before meals.

As tonic: ℞ Syrup Ferri. Iodidi, $\bar{5}$ ij,
Tr. Cinchonæ Comp., $\bar{5}$ iij.

M. S. Two teaspoonfuls three times daily, alternating with the following:

℞ Liquor Potass. Arsenitis,
Lugols solution of Iodine $\bar{a}\bar{a}$ gtts. v.

M. To be given three times every second day in a small tumbler of ale or beer.

A nutritious diet, with wine, ale, beer, and egg-nogs.

Frictions over the whole body with alcohol and cod-liver oil, equal parts, twice daily. Later we suspended the two first prescriptions and continued the third one, and the syrup of the phosphates of iron, quinine, and strychnine—Buntin & Armstrong's—adding to one teaspoonful five drops of Fowler's Solution, to be taken three times daily.

Externally, we ordered:

R̄ Acid Carbolic, ʒ i,
Potass. Permangan, ʒ ss,
Aquæ Oi.

M. About three ounces of this mixture to be injected into the sack two or three times daily.

Later we used: R̄ Acid Carbolic, ʒ i,
Tr. Iodini, ʒ ij,
Aquæ, Oi.

M. Inject two ounces twice or three times daily.

After the fourth day of treatment the fetor has diminished, and in one week the pus was homogeneous and odorless.

The patient began to recover gradually, and gained from 92 to 104 pounds in the latter part of August, and discharged well on the first of October, as you see him now standing before you with a gain of 16 pounds more.

Art. 8.—Gun-Shot Wound; Ball Lodging in Orbital Cavity—Removal; Recovery.

By FORDYCE GRINNELL, M. D., Physician to Wichita Agency, Indian Territory.

The infrequency of reported cases of a similar character renders the following one of some interest:

To-so-mo-checut (Gray Beard), a Comanche brave, was brought to his lodge and reported in a dying condition from gun-shot wound of anterior portion of the cranium. He had received the wound while attending the weekly issue of beef cattle. A great number of Indians are present on such occasions, and the heads of each family pursue their allotted

cattle, much after the manner of a buffalo hunt; the shooting in all directions renders the occurrence of accidents, at least, quite probable.

An examination exhibited a wound over the left eye, and indicated that the ball, upon striking the superciliary ridge of the frontal bone, had glanced downward. A further examination showed a destruction of the eyeball, and a foreign body within.

After administering chloroform and dividing the outer commissure of the lid, I proceeded to remove the bullet, and extirpate the disorganized globe. No injury to the bones making up the orbital cavity was discovered.

The ball was conical in shape, weighing three-quarters of an ounce, and was much flattened upon one side.

The man was on horseback, on the level prairie, at the time of the accident. The character of the wound would lead one to conclude that the ball was descending at an angle.

It seems difficult, from the character of the wound, to account for the amount of flattening of the ball.

The patient made a good recovery, and has just returned from a successful buffalo hunt, nearly one year having elapsed since the accident.

The wonder of his tribe still is concerning that powerful agent, a few inhalations of which gives the patient a comfortable repose during such an operation.

Art. 9.—Splinitis.

By E. J. HOWARD, M. D., Greenfield, Ind.

While we live in a malarial country, and practice medicine where intermittent fever prevails, we can not be indifferent to a very common sequel. During the autumnal months not a day passes that some one does not remind the physician of an "ague cake in his left side."

The discussion of this subject, anatomically and physiologically, would embrace the exact office of the spleen, which does not seem to be fully understood by our best authors. It is asserted, by good authority, I believe, that the spleen acts as a diverticulum of the blood when the liver is congested, and also aids in preparing the blood for the portal circulation, and

from all we can learn from books, the exact how of the spleen's preparation of blood for portal circulation is not decided. The spleen is engorged with blood during hepatic congestion, as is readily observed; and the engorged spleen sometimes becomes normal in size as the paroxysms of fever pass off.

When this viscus becomes enlarged from the effects of some external violence, or the suppression of some habitual discharge, as happens sometimes, the true pathological condition is different from an enlargement produced by malaria. The former produces an inflammatory condition, while in the latter the endangium of the blood-vessels is poisoned by malaria. It does seem necessary to keep these things before the mind as the treatment, if the treatment is to be scientific, or are we as physicians to give the subject so little attention that some quack, novice, or old woman, can surpass us? Having given the subject considerable thought, and having employed many remedies for hypertrophied spleen, which is the sequel of repeated intermittents, it is my object in this short paper to point out the most successful treatment in my hands. In recent cases of splenitis, caused by violence or suppression of habitual discharges, the treatment would readily suggest itself. Establish the discharge and allay the inflammation, constitutionally and locally.

As these observations are intended to more fully develop the splenitis caused by malaria and its treatment, I will pass many things which incidentally suggest themselves. The spleen is known to be a viscus of few nerves, little sensibility large blood-vessels, the diverticulum of the blood in hepatic congestion, makes it a suitable organ for the retention of this malarial poison. No one enjoys a perfect immunity from intermittent fever while this ague cake continues. If the malaria does not find its nidus in the spleen, where then? In the removal of this enlarged condition of malarial production, it is best to premise quinine and capsicum, and continue them daily until all paroxysms subside. Continue the quinine and capsicum weekly, in sufficient quantities to prevent any return of chill. At the same time make a liniment composed of four eggs, common salt four ounces; triturate the eggs and salt thoroughly, and add one ounce of oil of turpentine. Apply this liniment every night over the region of the spleen until that organ becomes soft, which will be the case in about ten nights if recent; if of long standing it will take a month. This liniment has not failed in my hands but a few times for the last ten years.

Art. 10.—Pathological Notes of a Case of Millitary Tuberculosis.

Read Before the Cincinnati Medical Society, January 25, 1876, by Dr. N. P. DANDRIDGE.

Mr. President—I have to present to the Society a series of specimens taken from the body of a colored child about two years old. The clinical history of this child is very meager. When admitted to the hospital she presented the appearance of being half-starved; she was greatly emaciated, and took nourishment voraciously, as though suffering from hunger. She presented the appearance as though suffering from some profound constitutional trouble. After two days she refused food, and gradually sank and died five or six days after admission. The temperature was not taken.

The mother was a common prostitute, and the father a large, well-developed negro man. No history of consumption could be obtained in either parent.

Autopsy: Body of a mulatto child, greatly emaciated; section: on the pleural surfaces of each lung were found scattered grayish granules of the size of a pin's head—these were evenly scattered over the entire surface of lungs, and were no where closely agminated together. The left lung was consolidated throughout, and a few cells on the anterior and upper surface of the lung could alone be inflated. On section the lung proved to be in a state of redhepitzation, and grayish granules similar to those on the surface could be seen scattered throughout the consolidated tissue.

The right lung was easily inflated throughout its entire extent. The granules upon the surface were then found to occupy the center of a small circle of non-inflated air-cells, which presented the appearance of foetal lung; they were depressed below the surface of the inflated portions, and were of a much deeper red color than the surrounding tissue.

The heart was normal. The peritoneum nowhere showed evidence of disease, except in the omentum, in which minute, discrete, grayish granules similar to those found in the lungs were seen. These were imbedded in healthy tissue, there being no thickening or evidence of inflammatory action. The liver, both upon its surface and upon section, showed similar masses thickly scattered throughout. The spleen was likewise affected, though here the individual masses were larger, and they were more numerous than found elsewhere. We have here a typical case of acute tuberculosis in a child. The brain

was not examined. Tubercles, by which, miliary tubercles alone are meant, present a structure strictly analagous to that found in lymphatic glands, namely: a fine reticulum of connective tissue, in which cells resembling lymph cells are found. They originate probably always in connection with the lymphatic system; and their relation to the finer blood-vessels, I am able to well demonstrate by means of some micro-photographs taken from the museum of the city hospital. The first photograph which I here show you exhibits the relation of the so-called perivascular spaces to the minute vessels of the pia mater. You will observe the outline of the artery is surrounded by a finer line, which bears the relation to it of one tube surrounded by another. The ensheathing tube, which is the perivascular space, is lined by a layer of endothelial cells, and it is probably from these the tubercle takes its origin.

This second photograph demonstrates this to you. The ensheathing tube you find is greatly distended, while through the center of the mass you can dimly discern the outlines of the arterial wall; the sign of these masses varies somewhat, depending upon the distension, and also on the length they run along the vessels; where they occur at the bifurcation of the vessel their outline is irregular.

These perivascular tubes or spaces were first discovered by His, and afterwards by Robin, and have been proved to be connected with the lymphatic system by injection, probably being the radicles of that system. Wagstaffe has recently, in one of the English Hospital Reports, described three cases of acute tuberculosis, and gives drawings showing the implication of the perivascular sheaths.

The existence of tubercles depends almost always upon the existence somewhere in the body of some caseous mass. In investigating this subject, Buhl found them so associated in all but ten per cent. of the cases, and justly remarks that non-discovery of the caseous mass is but negative evidence of its non-existence, as the search often may have been incomplete.

Tubercles are themselves but short lived, and soon fall into a caseous degeneration. Those tissues surrounding the tubercles generally present evidence of being in a state of formative activity, and are found infiltrated with young cellular elements.

The photograph I here exhibit to you shows this condition in the lungs—a line of cells being infiltrated about the tubercle proper. The photograph was taken from a section made from a lung, in a case of general acute tuberculosis; this explains the condition spoken of in the right lung of our case.

On the surface of the lung grayish masses were found imbedded in a surrounding circle of cells, which could not be inflated, in other words they were solidified from the irritation produced by the tubercle itself.

It is to be regretted that the temperature of the case was not taken accurately, as the fever line in these cases is of great interest.

Art. 11—A Severe Case of Iritis Treated by Atropine.

By E. E. RIOPEL, M.A., M.D., Cleveland, O.

C. DeV—, æt 29, Holland descent; been in this country four years; artist by profession; about two years ago was affected with phlyctenular keratitis of left eye which was treated by lunar caustic, as he says, and a number of cicatrices over the eyeball evidently shows some *caustic* effects.

He came to me on the 20th of February last, with the left eye very much inflamed, and extending to the lids and supra orbital muscles of that side. He complains of a deep seated pain, with intervals of a pulsating pain, which he says sets him almost frantic. He complains also of pain in the top of the head and back of the neck. The pain is more severe at night than in day time; has not slept any for more than a week.

The pupil I find to be almost closed, being no larger than the head of a small pin, the iris of a dirty grey color, and conjunctiva much injected and irritable.

After applying a hot bath to the eye, I commenced using a solution of atropia sulph. gr. iij. to the ℥ of water, but after using one drop every 5 minutes for about one hour, I could not see any change in the size of the pupil. I then tried a six grain solution, adding one drop every half hour during the day, but towards evening there was as yet no change. From the cicatriced condition of the cornea it was with difficulty that the pupil could be seen, and much more so any adhesions that might exist between the iris and lens, yet from the inactivity of the iris I concluded that there must be strong adhesions. On the following morning I ordered five leeches, then fomentation followed by a solution of atropine containing gr. x. to the ℥ of water. One drop was to be put in the eye every five minutes till six drops had been applied. This produced the desired effect, though there was considerable pain.

This strong solution was continued for two weeks, adding $\frac{1}{8}$ gr. morphia at night, so as to counteract the dangers of the atropine. After the use of this solution for four days, there always followed more or less pain, but after that it proved a relief and comfort. Evidently the adhesions had all been broken up after the fourth day. I used no precaution to avoid the drops entering the nasal duct as recommended by some, and I doubt not but that he being obliged at times to apply the drops himself, there was frequently more than the proper quantity poured into the eye.

Confinement in a dark room and atropine, together with a generous diet and fomentations and leeches to the eye, were all the remedies used to restore the eye, as it now is, *as well as before*.

Art. 12.—Vaccination as a Preventive of Small-Pox.

[Concluded from April Number.]

By W. C. CHAPMAN, M. D., Toledo, Ohio.

It is evident from the foregoing cases that the dreaded disease syphilis, has been implanted into a perfectly healthy individual through the medium of the operation of vaccination, and it is, therefore, of great importance that when such cases do occur, they should be brought prominently into notice, for the reason that each additional case more fully demonstrates the possibility of such infection, and enables the profession to take such measures as to obviate the danger, and at the same time remove the prejudice which exists among the people.

“As regards *Prevention*, Mr. Hutchinson thinks it of the first importance to diffuse the knowledge, that vaccination syphilis is possible, widely amongst the profession. Until all medical men believe in it, and fear it, we shall still be unsafe.”—[*Half-Yearly Abstract*, July, 1873.]

It is vain for the medical profession to contradict the assertion that syphilis has been conveyed by vaccination. The people believe that in every case of vaccination there is great risk, and it is almost impossible to so remove this prejudice as to gain a willing consent to the performance of the operation; in fact, this has been the greatest barrier in the way of popularizing vaccination.

Although it has not been conclusively demonstrated that in the lymph taken from a typical vesicle, there exists other than

pure vaccine virus, yet too much care can not be exercised in selecting the subject from which the supply is obtained. It is difficult to understand how any one can be so careless, or worse, reckless, as to employ virus from a subject in which there exists even a suspicion of syphilitic disease. If the appearance of the child at the time the lymph is taken does not present symptoms of the disorder, the physician is none the less culpable if he does not investigate the history of the child, previous to the time of taking the lymph, in all cases going back to ancestry, for transmission of syphilis by inheritance, is fully established. In all cases of reported vaccinal syphilis, an examination of the source from whence was obtained the supply of virus, has invariably shown, that there were sufficient signs of existing syphilis, to have deterred from its employment. This is very markedly shown in the case of the child "Conrad," reported by Dr. Lanoix, as even the mother was so fearful that the child had been the medium of inoculation, that she questioned the physician on the subject before he mentioned the fact to her. In no case should matter be taken from one laboring under the syphilitic diathesis. It is, therefore, impossible to agree with Dr. Viennoues, of Lyons, in admitting that such a procedure is ever allowable. He says: "If special circumstances make it necessary to take vaccination lymph from a syphilitic patient, great care must be observed to draw the pure lymph, without the slightest admixture of blood or syphilitic humor." Is it possible ever to be certain that this rule has been complied with? *Emphatically, No!* Therefore discard entirely the matter so taken, even if it is impossible to obtain other virus for the performance of the desired vaccination.

The theory has been advanced that the syphilitic poison is conveyed through the medium of the blood with which the vaccine lymph might be contaminated, and while it is impossible to obtain any but pure lymph from the typical vesicle, still there is a possibility of inoculating the disease by reason of this admixture of blood. Other eminent investigators believe that the poison may exist in the lymph of a typical vesicle, not intimately connected with the vaccine virus itself, but associated with some cell elements of the blood, which does not necessarily appear the color of blood. Some writers have endeavored to show this to be the reason why all individuals vaccinated from the same virus, do not present the signs of syphilization. Mr. Johnathan Hutchinson, Surgeon to the London Hospital, has reported a series of cases of vaccination syphilis, in which he argues this subject at length; he asks: "What

are we to infer from the circumstances that when syphilis is conveyed in the practice of vaccination it does not affect all those vaccinated from the tainted source?" In answering, he says: "We must believe that the specific poison of syphilis is either not contained in the vaccine lymph at all, or is not equally diffused through it. Thus, in the first series of cases, two out of twelve vaccinated escaped syphilis; in the second series, out of about twenty-six vaccinated more than half escaped; while in the third and fourth series only one out of at least twelve vaccinated from each vaccinifer is known to have been syphilized. It will be borne in mind, however, that the last two series have purposely not been followed up exhaustively, and that the proportion tainted with syphilis is not improbably greater than appears at present. Again, from the evidence of these series of cases, there is no doubt that we may vaccinate from a tainted vaccinifer without conveying syphilis; and, on the other hand, it is possible to convey syphilis either with or without the production of a normal vaccine vesicle. Vaccination from a child, evidently syphilitic, is known to have been done inadvertently several times, without bad results, and probably it has often occurred without being known. These points of clinical evidence make it highly probable that the syphilitic virus is not contained in the vaccine virus, but is derived from, or associated with, some cell elements of the blood, and probably they may not be visibly red. This is confirmed by experimental evidence, for syphilis has been successfully produced by inoculating the blood of a patient in the secondary stage; and in the case referred to, the dates, etc., agree closely with those observed in the author's series. Next, need blood be used in vaccination in order to convey syphilis? The author thinks that probably it is enough if the material used has been mixed with colorless exudation from the blood, as occurs when the vaccine vesicle is allowed to drain in order to furnish more lymph. This is confirmed by the fact that the vaccinators in the case in question, asserted that they scrupulously avoided making the vesicle bleed. In none of the instances is there any history that the lymph was visibly bloody, while it is well known that many men of large experience do allow the vaccine vesicle to weep. According to this supposition, as soon as the first contents of the vesicle are exhausted the risk begins. If the syphilitic virus, and the vaccine virus be implanted at one and the same time, what will be the course of events? If the patient is susceptible of vaccination, the vesicle goes through its usual phases and heals, and nothing more happens till the end of the month,

when the scar indurates and the chancre forms. In some cases, however, the vaccination sore never heals, and in these the scab somewhat obscures the character of the chancre."— [*Half-Yearly Abstract, July, 1873.*]

This is certainly one of the most difficult questions that can be presented for investigation, as it is impossible to understand why a disease which exists in the blood may not be transferred to an individual who has no such contamination, as readily by any portion of the blood which may exude into or around the vaccine vesicle, as by the blood itself directly transfused. Trousseau acknowledges that: "It is rather difficult to understand how that which is contained in the serum of the blood, should not also be contained in the serosity of the vaccinal pock." When science demonstrates the nature of the syphilitic poison, and designates the characteristic form and appearance of its particular cell-formation, then, and not till then, will such questions be definitely settled.

While ignorance upon these points must be admitted, it is of the utmost importance that vaccination should be universally enforced. To attain the desired end, it is imperative, that popular prejudice should be removed, the danger of syphilitic inoculation has been, and is the chief reason given by those who oppose the performance of the operation. It is useless to insist that this prejudice is unreasonable, the people themselves do not think so, and certainly remembering the cases which have been presented in these pages, it is useless for the profession to ignore the fact, that some danger exists; and while the great fear of contamination expressed by the majority of the laity is doubtless exaggerated, it has nevertheless sufficient foundation in fact, to enforce consideration on the part of the medical profession.

In latter years, animal virus has been furnished in large quantities, by those who have given attention to its propagation, this can always be relied upon as pure, when obtained from a reliable source; the people understand that no syphilitic contamination is possible when this form is employed, and will willingly give consent to the operation, when the employment of animal virus is guaranteed. Although this wish may appear to the profession as unreasonable, it should in all cases obtain, and no doubt much of the opposition to the operation which has been such a formidable barrier in the way of compelling attention to the enforcement of the procedure will thereby be overcome.

FOURTH.—WHAT MEASURES SHOULD BE INSTITUTED TO ENFORCE
A DUE APPRECIATION OF THE BENEFITS OF VACCINATION?

It would seem that the facts presented in the three preceding divisions of this paper, would be sufficient to show to all the desirableness of countenancing the operation of vaccination; but, as has been previously stated, the prejudice, is so great, in the minds of many who have given limited attention to the subject, that it would require an indefinite time to impress the necessity of immediate attention to the matter, by arguments or published facts. There is also a large class of people, who know nothing about the operation or the benefits to be derived from its employment, who through ignorance, therefore, are unvaccinated, thereby becoming the media by which small-pox may be indefinitely kept alive in any community. This class of persons can not be reached but by authority, and the question of the enforcement of compulsory procedures has for years past demanded the attention of legislators.

Unfortunately there is always a difficulty in the way of enforcing such laws as at all interfere with the prejudices of any considerable number of the people. In this country, until very recently, this prejudice has prevailed to such an extent that scarcely any attention has been given to the enacting of laws compelling a proper attention to the subject. That there are many obstacles in the way of successfully carrying such laws into effect no one doubts, but, on the other hand, the good of the public demands that no prejudice alone should be allowed to render inoperative such enactments as appear necessary for the welfare of all. Dr. Elisha Harris in a paper read before the "Public Health Association" says, "while the plainest laws of social and political economy may fully warrant the enactment of whatever laws are requisite to prevent pestilential diseases, the prevention of small-pox is secured only by a kind of interference with the individual which must first be justified upon the ground that, in the first place, the safety and welfare of mankind demand it, and secondly, that the laws and all proceedings under the laws are so applied as to do the individual no harm."

The question of enforced vaccination has occupied the attention of nearly every civilized nation, and the results of the compulsory observance of the procedure have conclusively shown the wisdom of such regulations.

The beneficial results derived from an intelligent enforcement of the operation of vaccination, has been clearly exem-

plified, in the history of small-pox in Sweden. In that country as early as the year 1803, a law was enacted whereby the inhabitants were compelled to give attention to the subject, and as the result the deaths from small-pox are now but 2.7 in 1,000 from all causes.

It was the chief object of those having charge of the enforcement of the Swedish law, to endeavor, by discussion and otherwise, to remove the prejudice of the people, and thereby popularize the operation. In this work the clergy were foremost in persuading the laity to give ready assent to the measure, and to their zeal much of the success of the medical profession must be accredited. Dr. Hedin, Physician to the King writing from Stockholm during the winter of 1814, says: "The archbishop bishops, and the whole of the clergy throughout the kingdom, having, from the time of the happy discovery of vaccination, embraced it with the most distinguished zeal; and many of this respectable body having not only employed the most effectual means for the removal of vulgar prejudices against it, but having even actually practised vaccination themselves; the king, assured of the continued exertions of the clergy in the same cause, was pleased to direct, that every minister should superintend the progress of vaccination within his parish; and should be empowered to call to his assistance one or more inspectors of vaccination, according to circumstances, for the purpose of causing all children to be properly vaccinated within the first year after their birth, and keeping proper documents of the performance of the operation. In each parish or district there must be an accredited vaccinator, whose duty is to perform vaccination, and to give a report of his proceedings to the Royal College of Health."

In order that the public might gain an accurate knowledge of the nature of cow-pox, the same writer says. "The college has also published, by the king's command, a Book of Instructions for vaccinators and inspectors of vaccination, which has been distributed gratis to all the churches in the kingdom. This treatise, adapted to the use of the public, affords an accurate knowledge of the true and false cow-pox; of the varieties which most frequently occur in it, and of the cutaneous diseases, which occur so often in Sweden, very nearly resembling the small-pox.

"For the more effectual encouragement of the practice of vaccination, the king has been graciously pleased to appoint rewards of two different kinds—pecuniary premiums and honorary medals. The latter are distributed, commonly in silver, but sometimes in gold, to those who have particularly distin-

guished themselves. In all cases, those who have deserved rewards, are humbly pointed out to the king, by the College of Health: and his majesty has reserved to himself the right of assigning the proportions in which those rewards shall be distributed. *It is also in the king's name, and with a certain degree of publicity, that these marks of his approbation are bestowed.*"

At the early date of the establishment of the Swedish vaccination regulations, a great difficulty was experienced in the procuring of a supply of reliable vaccine matter, and in order that this obstacle might be removed, an establishment consisting of a director and inspectors of vaccination was ordered by the Government. "The director is a member of the Royal College of Health, whom the king has graciously commanded to receive and examine reports, to answer all inquiries, to conduct the distributions of vaccine matter, which is delivered, free of postage, to all persons who apply for it; and, lastly, to report to the College everything relating to vaccination that requires further regulation, and propose to it, as proper persons to receive rewards, all those who appear to be the most deserving. He has also the immediate inspection of all the medical men, who are appointed to conduct the business of the stations, established in almost every province; the progressive vaccination performed at these stations being calculated to maintain a constant supply of fresh matter, which is also distributed, free of postage, to those who require it; and their proceedings being registered in proper catalogues and journals. In Stockholm, three several stations of this kind have been appointed, whence fresh matter may always be procured with certainty, if it happens to be wanting in any particular province." (*Dr. Hedin's Letter*, 1814).

By instituting a comparison between the various laws of the present day, it will be found that all those which are effective are, to a great extent, modifications of this Swedish law; this fact will be especially noticed in the compulsory enactments of the State of Maryland, which are the most comprehensive of all now in force in this country.

In England the first attempt made to legislate upon the question of vaccination, was the Vaccination Act of 1841, one of the provisions of this law made the practice of inoculation unlawful. For twelve years thereafter, there was no attempt made to compel any one to give attention to the operation. In the year 1853, an act, known as Lord Littleton's Vaccination Act became a law, thus making vaccination, to a certain extent compulsory. In regard to this act Prof. Aitken says, in the last edi-

tion of his valuable work upon the practice of Medicine; "It is now well known that Lord Littleton's Vaccination Act (1853), has proved but a very imperfect measure, a piece of legislation which has fallen far short of accomplishing all that is yet required. The inefficiency and imperfect working of the act has been fully shown. (1). In the Reports of the Registrar General for 1854; (2). By the medical profession generally; (3). By the medical registrars in particular; (4). By the public, as expressed now and again in the newspapers of the day. The unsatisfactory working of the vaccination act of 1853, now amply proven, has led to the promulgation of an order of the Privy Council (of date December 1, 1859), for the improvement of public vaccination. Their Lordships have seen fit to direct the commencement of a *systematic inspection*, with reference especially to the operation of vaccination, and its efficiency in Unions where the amount of infantile vaccinations, compared with the number of births, appeared to be especially low. These inquiries continue to show that the present law, "to extend and make compulsory the practice of vaccination, is so imperfect as to be almost inoperative; and the *systematic inspections* instituted seem to have been so useful in promoting vaccinations, that their Lordships propose to continue them throughout all the Unions of England."

In February, 1871, Mr. W. S. Foster moved that a committee be appointed to inquire into the operation of the Vaccination Act, and favored the idea of making the vaccination laws compulsory (*Aitken*). The results of the investigation would show, he believed, that "the extent of small-pox epidemics had really gone up and down, according as compulsory vaccination had or had not been enforced. In Scotland, and in Ireland, where they had insured almost complete compulsion, the disease was formerly very prevalent, and now it was reduced to a minimum. In those districts, too, in England, where vaccination had been enforced, small-pox had almost vanished. Nevertheless, some people in the country entertained conscientious objections to vaccination, on the ground that it would do their children harm; and the evidence which would be adduced before such a committee would, Mr. Foster believed, tend to convince such persons of their error."—[*Aitken's Science and Practice of Medicine*, vol I, p. 415.

It will be observed by an examination of the provisions made for the enforcement of vaccination, that attention has been given to the qualifying of those who are expected to perform the operation, so that, at the same time the people are compelled to undergo the vaccination, they are guaranteed

that a careful and skillful attention shall be given to its performance, by perfectly competent vaccinators.

Thus, in the Public Health Act of England, passed in 1858, the Privy Council has the power of issuing any regulations to secure a due qualification of those persons who may be contracted with, for the vaccination of poor persons, resident in Unions and parishes, and for securing the efficient performance of vaccination. "One of the most important indirect results of this power in their hands, is the appointment of *public vaccinators*, to give instructions in all the practical points bearing on vaccination, and, in fit cases, to give certificates of proficiency. They have, moreover, made arrangements for supplying lymph, guaranteed by the National Vaccine Board, to all medical practitioners who apply."—[*Chambers' Cyclopædia*, *Art. Vaccination*.

That this attention to the performance of the operation by those who enforce its observance, has much to do with the removal of existing prejudices, there can be little doubt, and it is but just that such attention should be, at all times, given to the institution of the procedure. Dr. Harris has aptly said: "If the State has the right to interfere in any way to secure the public benefits of vaccination for the prevention of the pest of small-pox, then certainly must the same authority extend to the prevention of imperfect, deceptive, spurious and injurious kinds of vaccination. There is ample reason why every community should wholly prevent midwives, old women, druggists, clergymen and amateurs, and all other persons than the legally qualified physicians, and such non-medical men as shall be specially instructed and licensed for this duty, to perform vaccination."

Within a few years several states have organized Boards of Health, and, therefore, some attention has been given to the prevention of small-pox epidemics. In such states vaccination has been made, to a certain extent, compulsory. Beneficial results have in every case followed the attempts thus made to arrest the ravages of the frightful disease. Unfortunately Ohio has no such laws upon its statute books, and, therefore in many localities small-pox has raged with uncontrolled energy. In Cincinnati, the death rate has been very high on account of the long continued epidemic which visited that city during the past year; as was mentioned in the first pages of this essay, the prejudice of a portion of the citizens was allowed to obtain, through the inefficiency of compulsory enactments. A contrast may be noticed in those cities where proper attention was given to the epidemic when

in its infancy. During the prevalence of a severe epidemic in New York and Brooklyn, as well as other Northern cities, during the year 1875, only eight cases of the disease occurred in Washington, because when these cases appeared, the Health Officer had the authority to enforce necessary measures to immediately stamp out the epidemic. Dr. Keene in his report to the Board for 1875, says, "Our success in arresting the spread of the disease has been indeed remarkable, and I attribute it entirely to the activity and thoroughness with which we have, in every instance, taken possession of the case and premises. * * * *

Activity, promptness, absolute power are the requisites to the accomplishment of this end. How long will communities and cities suffer these terrible enemies of human life to stalk abroad, numbering their victims by hundreds each week, while facts and figures such as these are presented to prove how easily, how simply, the first approaches may be guarded and the havoc prevented? A statesman in one of his powerful speeches in Congress, referring to some portending political calamity, startled his hearers by exclaiming, "Mr. Speaker, there is a lion at the door! Shall we shut the door and keep him out, or let him in and see if we can get him out again? How great a roaring lion is small-pox when it rages in a city, and how torn and scarred are they who survive the struggle for his expulsion; and yet how easily the door is shut if we be wise enough to heed the herald of his approach."

"A weapon of defence," says Curschmann, "against small-pox, so powerful as vaccination, should not be left to the pleasure of the individual, but the State has the right and the duty to look after its most thorough performance. As in other spheres, where, for the attainment of a result, perfect co-operation is requisite, so our experience in regard to vaccination teaches us that instruction and admonition alone are almost powerless in the struggle against negligence, deficient sense of duty, and evil disposition, which oppose this useful measure at every step. Those acquainted with the subject, therefore, have long since been of the opinion that to the attainment of the desired end, *legal compulsion* is absolutely necessary. The authority of the State to effect this is unquestionable in the minds of those free from prejudice, for the effectiveness of the method is beyond all doubt. Indeed, even where vaccination has been very imperfectly employed against the decimating plague; the average length of life has undergone an evident increase. Compulsion is furthermore justifiable on the ground that a certainty of success is impossible as long as a few individuals are not subjected to the operation; since

from the extraordinary contagiousness of small-pox, these become conveyors and diffusers of the poison. Even if vaccination were considered in the light of a sacrifice, the State might, *under certain circumstances*, demand this from the few in the interest of the community, and upon this basis establish a large number of State institutions. But even the selfish pretext that vaccination is injurious, becomes, as we have seen, in so far untenable as the great number of the formerly accepted dangers of vaccination have been shown to be wholly imaginary, and *the unquestionable harm, which only rarely occurs, can be certainly avoided by means of caution and experience.*"—[Ziemssen's *Cyclopædia*, vol. II, p. 416.

Every one, who carefully investigates the subject, must admit that the State has not only the right to enact such laws as are necessary for the preservation of the public against the ravages of small-pox, but it is the duty of all who legislate upon this question to compel those who may be influenced by an unreasonable prejudice, to yield obedience to measures which may be adopted for the welfare of the public. It is difficult, no doubt, to frame laws which will not seem oppressive, and at the same time be effective. As has been said, any measure undertaken to prevent small-pox by vaccination interferes with the individual, and, to a certain extent, with the freedom of judgment, which is considered so essential in a republican form of government. If, however, the question is fully discussed, and proper attention given to the performance of the operation by those in authority, much of the spirit of opposition will doubtless be removed. Other sanitary questions have been presented to the people by the medical profession, which though altogether differing in many respects from the one now under discussion, still they have been received as fact by mankind, and measures looking to the prevention of many forms of disease have been cheerfully borne by all. The heavy cost of sewerage and drainage is paid without a murmur of disapproval, because the fact has been made apparent by public discussion of the question, that disease and death are the consequence of non-attention to this important matter. As willing an acquiescence will be given to any enactment undertaken as offering immunity from small-pox, if it is shown that such compulsory measures are necessary and harmless.

By referring to the laws now in force in many of the States looking toward the extinction of small-pox by enforced vaccination, it will be found that there is a strange difference in regard to the supposed needs of a community in this respect. Some States ignore the question entirely, others only recom-

mend certain rules and regulations for adoption by Local Boards of Health, whilst others give the authority for the enforcement of laws, exhaustively in detail.

The following statute is all that is found upon the records of our own State, and while it may be considered better than none at all, it certainly does not deal with the question in that full and explicit manner which the importance of the subject demands.

This Act was passed by the General Assembly of the State of Ohio, and is entitled:

“A Bill to provide for vaccination in the public schools of this State, and to prevent the spread of small-pox therein.

“SECTION 1.—Be it enacted by the General Assembly of the State of Ohio, That the several boards of education in this State shall have authority to make and enforce such rules and regulations to secure the vaccination of, and to prevent the spread of small-pox, among the pupils attending, or eligible to attend, their respective schools, as, in their opinion, the safety and interest of the public may require. It shall be the duty of the board of health, town council, or trustees of township, of every city, town, or township, on application of the board of education of said city, town, or township, to provide without delay, at the public expense, the means of vaccination to such pupils as shall not be provided therewith by their respective parents or guardians.

SECTION 2.—It shall be the duty of the president of every such board to call a meeting thereof, for the purpose contemplated in this act, on the request of any member thereof.

“SECTION 3.—This act shall take effect on its passage.”

By the requirements of this act, boards of education are required to make suitable rules and regulations to prevent the spread of small-pox among the pupils of the State. In the first place, the objection to this act is, that a board of education is not the proper body to legislate upon subjects pertaining to medicine or surgery, and in the second place, the security guaranteed by such measures practically amounts to nothing. In Cincinnati, children bearing marks of successful vaccination were frequently the means of carrying the disease to others, unvaccinated; as free intercourse was allowed, too often between families in which the disease existed and those in which it had not appeared.

Another reason why Ohio's law is ineffective, is that it demands that vaccination should only be authoritatively insisted upon, when a small-pox epidemic has declared itself with sufficient emphasis, as to compel a consideration of the subject, through fear alone.

Michigan, by an act passed during the year 1873, established a State Board of Health, having for its object the enforcement of all laws relating to the public health. By reference to the laws intended to prevent the spread of small-pox, while much is found pertaining to the establishment and government of hospitals, &c., but one short paragraph or section is all that is given in relation to vaccination :

“SECTION 45.—Every township may at any meeting make suitable provision for the inoculation of the inhabitants thereof with the cow-pox, under the direction of the board of health or the health officer of the township, and they shall raise all necessary sums of money to defray the expenses of such inoculation, in the same manner that other township charges are defrayed.”

In addition to the above, the State Board of Health has recommended the following rules for adoption by the local boards throughout the State.

“Rule 14. Every child should be vaccinated before two years of age ; and this board recommends that all persons be revaccinated as often as once in five years.

“Rule 15. All incorporated manufacturing companies within the jurisdiction of this board, shall cause each new employe to be vaccinated on entrance, unless proof is furnished of previous successful vaccination.

“Rule 16. No person shall become a member of any public school within the jurisdiction of this board, until vaccinated, or furnishing a certificate from some physician that he or she has been successfully vaccinated.”

As these rules are simply recommendatory, without penalty, of course they can be considered in nowise obligatory, and are therefore of little value when the question of enforced vaccination is considered, other than as expressing the views of the Health Board.

In the City of New York, in June, 1874, an act was passed for the purpose of securing effective vaccination, and for the collection of pure vaccine lymph or virus.

The Board of Health of that city is empowered by this act to organize a corps of vaccinators, to appoint necessary officers, keep suitable records, collect and preserve pure vaccine lymph or virus, and by the thorough and systematic vaccination of all unvaccinated persons residing in the city, prevent the spread of small-pox therein.

In Washington City, in accordance with “an act for the prevention of diseases in the District of Columbia,” passed June 19, 1872, the following rules and regulations were adopted.

"Parents and guardians shall cause their children and wards to be vaccinated before they attain the age of two years, and revaccinated whenever the Board of Health shall, after five years from the last vaccination, require it.

"The Board of Health, hereby orders and requires the vaccination of all the inhabitants in the District of Columbia, and, whenever in their opinion the public health demands it, the revaccination of all persons who do not furnish satisfactory evidence that they have been successfully vaccinated or re-vaccinated within five years.

"The Board of Health will furnish the means of vaccination to such persons as are unable to pay for the same. For this purpose the physicians to the poor, or their assistants, will be directed to vaccinate the poor gratuitously; and, whenever the exigency requires it, physicians will be employed to go from house to house for the purpose of vaccinating all people who need vaccination.

"Principals of incorporated manufacturing companies, superintendents of alms houses, reform and industrial schools, lunatic hospitals, and of all other charities where the poor and sick are received; masters of houses of correction, jailors, keepers of prisons, and directors or officers of all institutions supported or aided by the District of Columbia, shall, at the expense of their respective corporations or institutions, cause all inmates thereof to be vaccinated immediately upon their admission thereto, unless they produce sufficient evidence of previous successful vaccination having taken place within five years."

The most comprehensive of all the vaccine enactments are those of the state of Maryland. By these statutes a State vaccine agency is established for the purpose of supplying fresh and pure virus to the physicians of the State, the agent being a physician in good and regular standing, receiving his appointment from the Governor.

In case the parents of a child are too poor to pay for the required vaccination, any physician performing the operation is paid a suitable amount, on presenting evidence that the services were rendered.

Every physician is required to vaccinate all children in the circle of his practice within one year after birth, and all persons who request vaccination must receive the services. If the physician neglects or refuses to perform the operation, he forfeits for every offense the sum of five dollars. The employment of impure virus upon his part, may be punished by the payment of a fine of not less than one or more than five hundred dollars for each offense.

Every parent or guardian who refuses or neglects to have his or her child vaccinated during the first year of life, if entirely free from disease, forfeits for each offense the sum of five or ten dollars. Teachers of schools are not allowed, under the same penalty, to receive a person into any school without the certificate of a regular practicing physician, stating the person has been successfully vaccinated. All fines collected from these sources are paid into the school fund of the county or city, in which such offense occurred.

As has been stated, those communities which have received protection from the compulsory measures, given in the preceding extracts from the laws governing vaccination, have all exhibited the wisdom of such enactments, by a marked decrease in the extent of small-pox epidemics, and the malignancy of the disease when it does occur. This exemption is shown to bear a fixed relation to the manner in which the laws are framed and executed. And although none of the provisions are to be considered perfect in all respects, those which are the most explicit in detail, as the laws of Maryland, are the ones which prove most effective in their practical workings.

As all these attempts of legislation have been for the most part experimental, there is no doubt that experience will enable the enactment of still more effective measures. This will be certainly the case when the people have become more thoroughly educated, and the benefit derived from proper enforcement of even such imperfect measures as are now upon the statute books becomes more apparent. There is one particular to which attention should be given, although, in many instances, entirely overlooked, which would add much to the effectiveness of all procedures; this is a system of complete registration not only of the births occurring in a community, but also of the cases vaccinated. It is also as necessary that re-vaccination should be enforced as that primary vaccination should be insisted upon. This measure is certainly the most difficult one involved in the whole question, as many who acknowledge the necessity of the primary operation consider that no farther attention is required to the subject through life.

From a careful review of the various laws now in force, together with the recommendations of many health officials, it is evident that more attention should be given to the subject by those in authority than has heretofore been done. No doubt it is difficult for legislators to enact laws which will be effective, and at the same time appear just and reasonable to the public.

The writer of this article would respectfully ask attention to the following suggestions, as presenting some of the mea-

tures which should be adopted for the enforcement of vaccination. And although for a time there might appear considerable opposition to their enforcement, still experience goes to show that in those communities where such attempts have been made, good results have invariably followed, and the wisdom of such procedures, therefore, in time, becomes apparent to every one.

First. Vaccination should be made by law compulsory. It should be the duty of every physician to see that this law is enforced in his individual practice. This requirement can be as readily complied with upon his part as the giving of a certificate of birth or death. In order that a ready acquiescence may be given by the people to the enforcement of this enactment,

(1). An attempt should be made to instruct all as to the nature of the operation; and by showing the manner in which all dangers to life and health may be overcome, prejudice will be removed.

(2). All vaccinators should not only attend to the proper introduction of the virus into the system, but should observe the course of the disease to a sufficient extent to know that it has been sufficiently developed to insure, for a time at least, the individual from an attack of small-pox.

(3). As much prejudice exists in regard to the danger arising from the employment of impure virus, all care should be taken by the vaccinator in selecting the source from whence his supply is obtained. As there is far less prejudice in regard to animal virus, it should be invariably employed when such a demand is made. It would be well for particular boards of health or dispensaries, to so propagate pure and reliable virus that a supply may always be obtained when desired.

(4). A full and complete registry of births should be insisted upon, as necessary for the enforcement of this law. The return of a vaccination certificate should be required during the first year of life in every case.

Second. Revaccination should also be compulsory. In the absence of epidemic influence a revaccination should be insisted upon at the tenth year and again some time after puberty, at about the age of twenty; when a community is subjected to epidemic influence, all should be compelled to suffer a revaccination. No positive assurance exists that an individual will not receive the poison of small-pox until the fact is made known, by a reintroduction of the vaccine virus into the system, followed by no development of the cow-pox disease.

Third. For the enforcement of all sanitary laws, the various boards of health should have full authority, with sufficient means to carry out any measure that may be adopted. It is imperative that constant attention be given to all enactments pertaining to the subject of vaccination, as it is believed that in this way only can the idea of Jenner ever be realized, who believed that in vaccination there is an antidote capable of extirpating from the earth a disease that has been considered the severest scourge of the human race.

Art. 13—Manual Exploration of Rectum, with the Report of a Case Followed by Rupture of Bowel and Fatal Peritonitis.

Read before the Cincinnati Medical Society. By N. P. DANDRIDGE.

Since Prof. Simon, of Heidelberg, in 1872, published his article "on the artificial dilatation of the anus and rectum, for exploration and operation," this proceeding has gained a wide notoriety and been practiced by many surgeons in different countries.

The general verdict seems to agree, with the opinion of Simon himself, that the introduction of the hand into the rectum is followed by no serious or dangerous consequences, at least, we so judge, from the fact that cases in which fatal or even serious consequences have followed, have seldom been mentioned. The following case shows, I think, that the dangers of the operation are by no means imaginary, but that they are so great as even to be responsible for a fatal termination and to justify the question as to whether the advantages gained counterbalance the risk incurred.

On taking charge of Dr. Mussey's ward, I found there March 20, a patient who had been in the hospital since February 14. He was twenty-five years of age, a native of Wales, a boiler maker by trade, and unmarried. His family history was good, both parents living to advanced age. No hereditary taint could be discovered.

Previous to last June his own health had always been good. At that time, after a hard days work, he was suddenly seized with a severe pain about the left groin, and was scarcely able to walk for two weeks. The pain sometimes extended into his back and hips and down his thighs. He at this time noticed

a swelling or fulness in the upper and inner part of left thigh, after returning to work the pain which he refers to, the sacro-iliac articulation and not to the spinal column, has continually increased, so he was no longer able to complete a days work. He gives no history or indication of syphilis.

Physical examination—Was of average height, somewhat emaciated and with an anxious expression of countenance, appetite good, bowels regular, urine acid, specific gravity 1010, and free from albumen. There is a swelling or fullness in the left groin extending from Poupart's ligament, for several inches, down the inner side of thigh. This swelling is no where very prominent, but fades off gradually into the surrounding tissues. The integument over it is quite normal. Within the abdomen (in the left iliac region) an ill defined mass could be felt. This was dull on percussion, while the rest of the abdomen was quite normal, though the walls were somewhat tense. Pressure along the spinal column showed no point of tenderness. Firm pressure over the sacrum caused some pain, though not much. There was no angle or curvature in the vertebral column.

The case was examined by several gentlemen, and an indistinct fluctuation was thought by some to be obtained by palpating the intra-abdominal mass and the swelling on the side of the thigh. Upon this point I never could satisfy myself. An absolute diagnosis in the case was impossible, while its evident gravity demanded as much certainty as possible before any relief should be undertaken. For whatever supposition was entertained prominent and important symptoms were absent, thus while Psoas abscess was considered as the most probable disease, there was neither angular curvature, pain nor pressure, both of which would surely be expected to be present after the disease had lasted nearly a year. Under the circumstances it was determined to make a rectal exploration to determine as far as possible the character and position of of the intra abdominal swelling, and, also keeping in view the possibility or probability of a psoas abscess to explore the bodies of the lower vertebra and determine if they were the seat of disease.

The operation was explained to the patient, and he readily consented to its performance. March 22, the patient being under æther assisted by Dr. Connor, I made the rectal exploration. The hand being well oiled, and doubled to a cone shape, the sphincter was very slowly dilated, more than ten minutes elapsing before the hand passed into the rectum. A few inches above the anus the tips of the fingers discovered what seemed to be a constriction of the bowel as though

it were bound down by a false membrane. Beyond this it was at first difficult to discover the channel of the bowel. The hand once in it passed readily without any force being used up to the promontory of the sacrum. Just before reaching this point a considerable swelling was noticed behind the bowel. The anterior bodies of the vertebra, and the sacrum were explored, but seemed smooth and normal, no roughnesss, or loss of substance being discovered. Turning to the left the Psoas magnus could be distinctly felt, it was several times the size of the muscle on the right, and was of a firm, tense and elastic feel. Higher up it extended in front of the column almost to the medium line. The common iliac could be distinctly felt to the inner side of muscle, though its pulsation was not so strong as in its fellow of the opposite side.

Dr. Connor repeated the examination. In neither case was the hand forced at all up the bowel; nor was it attempted to carry the examination higher than the bifurcation of the aorta. From this examination, the existence of psoas abscess was considered definitely determined.

Recovering from the anæsthesia, the man was ordered morph. sulph. $\frac{1}{4}$ grs., in case of pain. Six o'clock P. M.—Unable to pass urine—this was drawn by catheter. Feels comfortable.

March 23, 8 A. M. Urine again drawn off; half an hour after passed some naturally; pulse 120; temperature 103° F. Complains of some pain in lower part of abdomen. There is also some tympanitis, and slight distension. Six P. M. Pulse 120; temperature 104°. Urine again drawn; quinia and morphia alternated every two hours.

March 24. Pulse 112; temperature 101°. Ordered milk and lime water; turpentine stupes to abdomen, and continue morphia. Quinia causes nausea, discontinued. Five P. M. Pulse 120; temperature 101°; respiration 32. Nine P. M. Pulse 120; temperature 102; respiration 24.

March 25. Urine passed naturally. Pulse 108; temperature 99; respiration 20. Pain has disappeared, and general condition better. Bowels have not been moved since the exploration; ordered injection. Discontinued morphia until he complained of pain. As he was suffering from constant nausea, ordered calomel 1 gr., to be repeated in four hours. Five P. M. Has occasional attacks of vomiting. Pulse 108; temperature 102°.

From this time the patient continued to grow worse; signs of pneumonia developed, first in right lung and afterwards in left. He died 21st, at 9 P. M.

To recapitulate the above history:—Inability to pass urine from the time of the operation. Within twenty-four hours, symptoms of peritonitis, which almost completely subsided on the third and fourth day, to be again relighted together with most formidable pulmonary complications. Death on tenth day.

Autopsy, thirteen hours after death: Post-mortem rigidity was well marked. On opening the chest a large quantity of purulent matter was found in the right pleural cavity. The pulmonary pleura was covered by a thick layer of recent lymph, and the lung itself compressed and carnified. Left lung was covered by recent though tolerably firm adhesions; in the dependent portions it was solidified, and was greatly lacerated in removing it. The rest of the lung was greatly congested.

Heart contained in right ventricle a soft white clot. The left ventricle was empty, and the heart itself normal.

Throughout the peritoneal cavity, large flakes of recent lymph were everywhere found, binding the loops of intestine together. A large deposit of this lymph was found on the upper surface of the liver, between it and the diaphragm, and a similar one covered the surface of the spleen. The peritoneal surface of intestine was of a darker hue than normal, and in places almost of a mahogany color. There was no fluid found in the cavity of abdomen. The mucous membrane of the intestine was normal; its contents was semi-fluid. The large intestine contained some lumpy feces. On the anterior coat of the rectum, there was a slit like tear through the peritoneum, as far as the muscular coat; it was about two inches in length, and was situated about five inches from the anus. The edges were somewhat thickened and rounded off; there was no especial evidence of inflammation in its immediate vicinity. The mucous membrane corresponding to this rupture was quite normal; at the same level on the lateral and posterior aspect, two large abscesses in the walls of the bowel were found. These abscesses, projecting into the caliber of the rectum, must have narrowed it considerably. Just above the sphincter there was a tear through the mucous and muscular coat. The left psoas magnus was found hollowed out by an abscess, and contained a partly fluid and partly cheesy pus. The iliacus on the same side was in a similar condition. These two cavities joined first over the pubic bone, and then passed down towards the point of insertion of the muscles, breaking through the muscular sheath; the abscess had dissected the soft parts from the femur, for about half its circumference—not, however, opening the joint. At the point where the psoas

passes over the ridge of the pubis, the bone was carious; an abscess was also found at the upper part of the sacrum and lower half of the fifth lumbar vertebra. This was beneath the anterior ligament, and completely masked the condition of the bones beneath. The fourth and fifth lumbar vertebra had suffered considerable destruction in their bodies, and the first division of the sacrum was very much eroded.

The only conclusion that this examination can lead to is that during the exploration, the peritoneal coat of the rectum was ruptured, some five inches above the anus, and the mucous membrane torn through just above the sphincter, and that these injuries were the cause of the succeeding peritonitis.

Some points of interest in respect to the exploration are also explained. The apparent stricture spoken of above, as met by the tip of fingers, during the introduction and the difficulty in finding the channel of the bowel, are accounted for by the existence of the abscesses in the wall of the rectum and these projecting into and narrowing the calibre. It is also probably that the rent in the peritoneal coat must have been caused by this same narrowing of the bowel for it occurs at a point where the rectum should be widest, and much lower down than is found to be the seat of rupture when the hand is forced up the bowel until rupture occurs in the dead subject. That the condition of the vertebræ could not be discovered is due to their being masked by the above described abscess in front of sacrum.

The result of this case very naturally suggests the question, is this means of exploration as innocuous as has been thought and taught by its author, and many who have had large experience in it, or was the present one of those cases in which it was not applicable, or was the examination itself conducted in such a manner as to render it dangerous, when it might have been conducted differently and safely.

Simon, in a translation of his article "on the artificial dilatation of the anus and rectum," etc., found in the Cincinnati LANCET AND OBSERVER, May, 1873, says: "I have frequently used patients who were under the influence of chloroform when it was not really necessary to make the examination. I made these examinations because I was convinced that they were perfectly harmless."

This is the conviction of one who has had the largest experience in this mode of examination. His directions for the exploration are as follows:—"The hand being well oiled, two fingers are first introduced through the sphincter, then four and finally the thumb and whole hand. The dilatation must

be gradual and assisted by a rotary motion, following these directions a hand measuring 25 centimetres may be introduced absolutely without harm."

"The anus forms in its greatest dilatation even, which is 25 centimetres in circumference or more, a narrow entrance to the larger cavity of the rectum. This cavity is formed by the middle and inferior portion of the rectum, the first of which lies outside of the peritoneum, and the second is covered only on the anterior portion by the posterior wall of the Douglasii fossa, and extends to the superior third of rectum, i e. to a point above which the peritoneum incloses the anterior and lateral walls of the bowel and where it is attached to the os sacrum. This point lies from 12 to 14 centimetres above the anus and corresponds to the third sacral vertebra.

The greatest width of the rectal cavity is at a point about 6 to 7 centimetres above the anus and its expanding capacity here is from 25 to 30 centimetres. From this point to the superior extremity of the middle third it gradually diminishes to 20 to 25 centimetres, and from here it rapidly lessens until in the middle of the upper third, it is not more than 16 to 18 centimetres in circumference, its narrowest portion being in the sigmoid flexure." After these anatomical considerations, he says later, "the base of the thumb is thrust to this point 12 to 14 centimetres above the anus, and half of the hand can advance through the upper part of the rectum into the beginning of the sigmoid flexure." "Therewith the abdomen may be palpated several centimetres above the umbilicus, etc."

The above quotations are given to show the limit set by Simon himself upon the examination, and the depth the hand may penetrate without incurring danger from rupture of some of the coats of the bowel. This limit has not however satisfied the aspiration of some who have used the method, and cases have been published, in which the claim is set forth that the hand has passed through the entire sigmoid flexure into the descending colon, this claim is on the face of it palpably untrue, as is positively proven by the above measurements by Simon of the distensibility of the bowel, as well as the distance the hand would have to penetrate to accomplish it, and also from the tortuous course of the sigmoid flexure.

The above directions of Simon were closely followed in the present case. The hand, which measures but twenty-one centimetres in circumference, was introduced in the manner above described, with great care, and without haste, and was only carried high enough to reach with the tip of the fingers the bifurcation of the aorta; and not, as we have authority for,

high enough to palpate the abdominal wall, several centimetres above the umbilicus. In spite then of the precautions observed, and the limited depth of which the exploration was carried, the bowel was ruptured, and that, too, at a point where its calibre should have been largest, and where, therefore, the danger of rupture slightest.

That the seat of rupture was determined by the abnormal narrowing of the channel of the bowel, by the existence of the abscesses in the rectal wall, I think, must be admitted; but at the same time no appreciable force was used in the passage of the hand, and at no time did we experience the sensation of overcoming an obstacle. The constriction spoken of in describing the operation was felt only by the tips of the finger, and was not at all appreciated when the hand had passed the sphincter. That the walls of the bowels happened to be in an abnormal condition is not a satisfactory answer, for this condition could not be known, or even suspected beforehand. We must, therefore, admit, I think, that the evidence of this case proves that rupture of some of the coats of the rectum may occur where no appreciable force is used, and where the exploration is kept far within the limits prescribed by its author; and if, therefore, rupture may occur from the use of force so slight as not to be appreciated by the operator, can the exploration in any case, given beforehand, be considered absolutely harmless, even where the greatest care and caution are used? This conclusion is not reached by a consideration of the above case alone.

H. B. Sands publishes in the N.Y. Medical Record, June, 1874, the account of a case examined by him. The hand, which measured 19 centimeters in circumference, was introduced to a depth of twelve inches, measuring from the tips of the fingers—the arm being too large to further distend the sphincter. Post-mortem examination revealed a rupture through the muscular coat, eight inches from the anus.

In the number of the same journal for March, 1875, will be found a case by R. M. Weir, in which the examination was made to determine the seat of stricture in a case of intestinal obstruction. The hand, measuring $22\frac{1}{2}$ centimeters was introduced to a depth of eleven inches. The left kidney was felt; the aorta above the bifurcation, and the distended caput coli explored. Death occurred in a few hours, and there was found a tear through the peritoneum of several inches in extent.

In the same article a case by Sabine is given. Exploration undertaken to determine the diagnosis of a renal tumor. Hand, 19 centimetres in circumference, was introduced to a

depth of eleven inches. Death in four days. Laceration of muscular coat of rectum, with ecchymosis was found to have occurred.

I have been myself present at four different explorations, in two of which I assisted in the examination, one the case first described, and one in which the examination was undertaken by a friend to confirm a diagnosis of aneurism at the cœliac axis. During the examination the mass forming the aneurism and its pulsation could be distinctly felt. Death occurred in about twenty hours. No rent in the bowel was found, the aneurism however was ruptured and a quantity of blood had been extravasated behind the peritoneum, none being found in that cavity.

In this case there were reasons for believing that rupture of the aneurism might have occurred some time before the examination, and was not at all dependent upon it.

In the third case exploration of a renal tumor was the object for which the examination was undertaken. For a number of days after there were symptoms of slight peritonitis, these however disappeared and the man died some months afterwards from the original disease. At the autopsy there was no evidence of any damage to the coat of the bowel, if there had been any it had entirely disappeared.

Finally I was present at the examination of a young woman about twenty years old. She complained of an ill-defined fullness and enlargement in the left iliac fossa, and to determine the character and locality of this, the examination was undertaken. The examination proved that the fossa was entirely normal and the conditions suspected from the external manipulation did not exist. For about twenty-four hours there was slight incontinence of feces, this passed away and no other bad symptoms of any kind followed.

I have not attempted an extended search through the journals to find whether the number of cases followed by serious accidents, might not be further increased. The evidence of the five fatal cases above recorded, seem to me, however, sufficient and positive proof, that even with the greatest care and caution the operator will not be able to appreciate the presence of abnormal conditions, which will render serious damage inevitable so that in every individual case serious or even fatal consequences are liable to follow the examinations.

Translations.

Treatment of Syphilitic Attacks in the Naso-Pharyngeal Region.

By Prof. DR. CHAS. MAURIAC, Physician to the Hospital Midi.

In a series of very interesting lectures Prof. Chas. Mauriac, gave the rules for a rational and perfect treatment of tertiary syphilitic accidents that so frequently and seriously attack the nasal and pharyngeal regions.

After having insisted upon the necessity of the administration of Iodide of Potass. in the pharyngo-pathies of tertiary syphilis, in sufficient doses, and continued for a sufficient length of time, the Prof. gave the local treatment for cases of nasal syphilis. * * * * *

Nasal syphilis requires the same constitutional treatment, but the local treatment is more complicated.

If there be ozena and an abundant fetid muco-purulent secretion, it will be necessary to use injections or the nasal-douche. * * * * *

The liquids employed are various. One of the best is luke warm water, slightly salted (10 grms. of salt to 1 litre of water). A douche with this solution very frequently suffices to correct the fetid odor; but it is almost always necessary to repeat it 3 or 4 times a day.

Of the disinfectants I would recommend those of Permanganate of Potass. Carbolic acid or Labarraque's solution. As a vehicle employ always luke warm water, 1 litre to which add two tablespoonfuls of the following solution:

R_y Potass. Permangan, 10 grm.
Aqua. 100 "
M.

Or 1 gramme of carbolic acid, or 5 to 10 grammes of Labarraque's solution.

As a vehicle for the medicinal douches you can employ 1 litre of a decoction of the leaves of the walnut tree, of the roses of Provins, of Quinquina, of Rhatany, or other astringent substances, you can dissolve therein small quantities of the sulphate of zinc (50 to 80 ctgrs.) of alum (50 to 80 ctgrs.) of the acetate of lead (1 grm.) of the chlorate of potass. (5 to 10 grm.) Guersant employed as an injection, 500 grammes of milk to which were added 2 to 3 tablespoonfuls of the liquor of Van Swieten.

I sometimes seek to act upon the nasal mucous membrane, by a method more easy, by causing the patient to snuff a medicated powder, taking several pinches a day.

I need not detail to you the *modus faciendi*; it will suffice to give you a few formula. The powder employed as a vehicle is either sugar or venice magnesia.

Sugar is preferable in the dry, the magnesia in the moist forms of *ozæna*. As to the active ingredient you may choose according to the case, between calomel white precipitate, chlorate potass., alum or tannin—here a few formula :

R _y . Sugar or Magnesia,	10	gram. 00.
Calomel,	00	“ 50.
Bismuth Subnitrate,	5	“ 00.
<i>M.</i>		

The sub nitrate of bismuth is an excellent tonic, which may enter into almost all the formula, for these powders :

R _y . Red precipitate,	Og.	25.
Sugar or Magnesia,	15	“ 00.
<i>M.</i>		

Sometimes alum and tannin are combined :

R _y . Alum,	{	$\frac{\text{aa}}{\text{aa}}$	1	gram. 00.
Tannin,				
Magnesia,			10	“ 00.
Bismuth Subnitr.,			5	“ 00.
<i>M.</i>				

Hedenus used the two following formula :

R _y . Calomel,	Og.	25.		
Powder of the herb of Marjoram,	{	$\frac{\text{aa}}{\text{aa}}$	4	“ 00.
Powder of the root of Asarum,				
Powdered Sugar,				
<i>M.</i>				

R _y . Animal Charcoal,	4	gram. 00.		
Powder of Quinquina,	{	$\frac{\text{aa}}{\text{aa}}$	9	gram. 00.
Powder of Myrrh,				
Powder of Cloves,				
<i>M.</i>				

Lastly among the most active local remedies, I can recommend to you the nitrate of silver for cases where there are fungosities or ulcerations. Use the stick if that be possible or a solution of this salt (1-5th or 1-10th) in distilled water or glycerine, which apply directly to the affected part, with a

camel's hair pencil. Here the formula for an ointment, which you may find sometimes advantageous to employ :

R. Argent. Nitrate, Ogr. 50 or 1 gr.

Dissolve in 1 or 2 grms. of distilled water and incorporate into cold cream, 20 grms.

M.

I have said enough, to give you an idea of what you may gain by topical applications in nasal syphilis. You will remove one of the most irksome symptoms, the ozæna; you will either modify or dry up the morbid secretions. You will hasten the cicatrization of ulcers or favor the elimination of necrosed bone. But you will do no more than assist the constitutional treatment. Here as in the pharyngopathies give always iodide of potass.—give it early and in large doses.—*[Trib. Medic.]*

A Collodion for Freckles.

A collodion containing ten per cent. of its weight of sulpho-carbolate of zinc, has given excellent results, without being accompanied by any of the dangers attending the use of mercuria solutions.

The following is an excellent formulæ :

R. Sulpho-carbolate of zinc,	1 pt.
Collodion,	45 "
Oil of lemon,	1 "
Absolute Alcohol,	5 "

The zinc must be first reduced to a fine powder, and then incorporated into the fluid mixture.—*[Bullet. General de Therapeut, Balt. Phys. and Surg.]*

Proceedings of Societies.

CINCINNATI MEDICAL SOCIETY.

The Society met January 18, 1876, Dr. Comegys in the chair.

Dr. Stanton reported the following cases :

Case 1. I was called on the 7th ult., to see Mr. L——, who the evening before had a chill followed by a high fever, frequent pulse,

severe headache, pain in the back, vomiting, and sore throat. He had on his arm a cicatrix of a vaccination performed in childhood. He has not been vaccinated since.

Believing this to be a case of varioloid, I vaccinated his wife and three children, aged respectively 8, 6, and 4 years. All had been vaccinated before, and, judging from the cicatrices, I should say successfully.

After a day or two of high fever, the patient slowly improved. The sore throat disappeared, the headache and pain in the back became less severe, the fever abated, and on the 5th day entirely disappeared, and he was able to be about. He was examined carefully on the third, fourth, and fifth days, for the eruption of variola, but none was found. He was more feverish on the eighth and ninth days; but this subsided, and from that time he speedily recovered.

Of those vaccinated, the mother, and the oldest and youngest children took, and on the eighth day the vesicle on the arm of the youngest child presented all the characteristics of a good vaccination.

On the 20th ult., fourteen days after the father was taken sick, I was called to see the youngest child, whom I found with an eruption of small-pox. The scab caused by the vaccination was nearly ready to fall off, and did fall off a day or two later. The eruptive fever had been much less violent than in the case of the father. The boy had been playing about the house every day.

The eruption was very free, but was discrete, except on some parts of the face where it was cohering, and ran the usual course—desiccation commencing about the eighth day of the eruption. The older brother, who was unsuccessfully vaccinated on the first, was revaccinated when I was called to see the second case, but it was not successful. No other member of the family has had the disease.

Three points of interest present in these cases:

- 1 In the case of the father there was a severe initial fever, without any eruption. The diagnosis of *Variola sine exanthemate*, is not, I think, doubtful, when we consider the history of the cases. The child slept with its father the first night of his sickness, and after that in the same room. It was not out of the house during, nor for some days preceding, his illness; nor had there been any other cases of the disease in the immediate neighborhood.

2. The progress of the vaccina and variola in the child at the same time.

3. The difference in the intensity of the initial fever—being severe in the first case, where there was no eruption, and so slight in the second that it was not considered necessary to call a physician, nor was the character of the disease suspected until the eruption made its appearance.

Case 2. I was called on the 30th ult., to see Mrs. B—, 43 years of age. She was living in a house where there had been some cases of small-pox, and had been a frequent attendant at the

bed-side of the sick. She had been vaccinated in childhood, not since.

About thirty-six hours before I saw her, she had a chill, which was followed by fever, headache, and pain in the back, in the region of the sacrum. She had a great irritability of stomach. She also had diarrhoea, a condition of the bowels to which she was subject. The stools, she said, were of a burning character.

Small doses of morph. sulph. were given, which allayed the vomiting, and quieted the bowels. The headache was better the next day, but the fever remained about the same. No change occurred until the afternoon of the 1st inst., when she began to menstruate about two weeks before the regular time. The discharge becoming very profuse, I was called. I had examined her in the forenoon of that day for the eruption, but found none. On examining her at my evening visit, I found her chest, neck, and arms covered with a macular eruption, on these parts and the face, which were the only parts examined, I found six variola pustules: two on the face, two on the neck, and one on each arm. To check the hemorrhage, fluid extract of ergot in half-drachm doses, was prescribed, and a tampon introduced. Tinct. ferri. chloridi, in doses of twenty-five drops three times a day, was ordered. The irritability of the stomach returning, morphia was again given. Two hours later, 10 o'clock P. M., the stomach again retained the ergot, and I left the patient, with instructions that if she were not better by midnight I was to be called. Her husband, her only attendant, fell asleep and slept all night. The next morning I found her arms thickly studded with small petechial spots. The hemorrhage continued until her death, which soon followed.

Dr. W. B. Davis said that he had during the present epidemic seen two cases of variolous initial fever not followed by eruption.

The first patient, a man about 35 years of age, who had been vaccinated in his youth, presented all the symptoms of variola. They continued for three days, then partially subsided, and with the exception of one aborted vesicle there was no eruption.

The second case, a young man whose sister had died of small-pox in the room he subsequently occupied, presented the symptoms of the disease, the pain in the sacral region being very intense. He had high, bounding pulse, dry tongue, etc., which continued four days and then subsided. Before he got well, a younger brother, who had been twice vaccinated unsuccessfully, was taken sick with what proved to be variola discreta.

Dr. Culbertson said his experience with small-pox this year, had been to him very unusual. In the first case which he had treated, that of a man 25 years of age, there was the most intense fever he had ever seen. On the seventh day from the first feeling of malaise purpurra hemorrhagica showed itself on the face and he died that day. This patient had had small-pox when five years old, from which he was much pitted.

In another case a patient, whose face was marked from an attack of small-pox some years previously, had the disease in the

confluent form, from which he is now convalescing. His sister, who had had the disease when young, took it from him.

Another case—that of a young man about seventeen years old, who had been vaccinated and had a good cicatrix—is now convalescent from an attack of small-pox. His mother, who nursed him, aborted at about the fifth month of pregnancy from the effect of the variolous poison, as he believed, although she did not take the disease.

Dr. Comegys asked what explanation could be offered for the pain in the back in this disease. Is it external? Or does it come from some affection of the nerve centres?

Dr. Taylor said this was a common but not a constant symptom, not present in more than 75 per cent. of cases. In some of the worst cases it was wanting. We have the same symptom in all cases of blood-poisoning, measles, scarlet fever, &c. He thought it due to defective nutrition—the blood in its poisoned condition not properly nourishing the system.

As in other cases we have aching, fatigue, &c., from want of proper blood supply, so we might find an explanation of the pain in the back, head and limbs in cases of blood poisoning, in a similar condition. Confirmatory of this view is the fact that the appearance of the eruption brings relief—the poison being eliminated from the system by the eruption.

Dr. Comegys. May there not also be congestion about the nerve centres.

Dr. Taylor. The delirium present in some cases would indicate that there was congestion of the brain.

Dr. Carson related a case bearing on this question, and the one raised by the case of diphtheria reported by *Dr. Mackenzie* two weeks before.

A man 26 years of age, of delicate constitution, engaged in the sale of paints—not engaged in their manufacture, except occasionally in an experimental way. About the middle of December he had an abscess on his neck. It healed and a few days before Christmas he went to work experimenting in the making of paint. The day before Christmas he went to the depot to meet a friend. While waiting for the train he began to have pain in the back. The next morning, Saturday, he suffered intensely, the pain extending down his legs. On Monday it became very intense and there was some mental disturbance. *Dr. W. P. Thornton* who was then called, found him with a rapid and feeble pulse, temperature $102\frac{1}{2}^{\circ}$. The breathing was of a peculiar character. It was very rapid for awhile and then became slower. He soon began to exhibit some delusions. There was great tenderness about the sacrum. The dryness of the throat was extreme. These symptoms continued three or four days. He then began to show some diphtheritic deposit on the fauces. There was no enlargement of the tonsils, no difficulty of swallowing or breathing. There was constipation and some difficulty in urinating.

After a few days the peculiar character of the breathing disappeared. The pain in the back was a little relieved by cupping and blisters, but the case went on until he died, after two weeks' illness.

Was this a case of lead poisoning? Or were these symptoms due to diphtheritic poisoning? The patient had not worked much in lead until the week before his last illness. A sister had had sore throat six weeks before, which she said was diphtheria, though she had no physician. Her sickness, with the persistence of the deposit in the brother's throat, and the cerebral and spinal symptoms, induced Dr. C——, to think this a case of diphtheria poisoning.

The same condition may have existed in the case reported by Dr. Mackenzie, and we might suppose the same condition in small-pox.

Dr. Kellar thought the explanation given of the pain in the back satisfactory. In many cases this symptom is entirely wanting, and yet these may be the worst cases; and some cases in which it was most severe were cases of variola discreta or varioloid. If due to blood poisoning, it should always be more severe in confluent cases—less severe in varioloid.

Dr. Epstein reported the case of a man, 34 years of age, tall, spare, a laborer. He had treated him during the last summer for pulmonary catarrh, from which he had recovered. About the 1st of January he treated a daughter of the man for confluent small-pox. Soon after her recovery the father began to complain of pain and aching all over. Quinine was prescribed, and after a day or two of rest the patient went to work, and worked for the next three days. On the morning of the next day Dr. E—— was summoned in great haste. He found the patient collapsed, pulse 100, profuse perspiration. He had had one severe convulsion. The veins of the head were turgid. He did not recognize those around him. Pupils contracted and dilated alternately. As his bowels had been constipated for three days, croton oil was given. As this had not operated in the afternoon, an anema was given, which produced a free operation. Stimulants were given, but the collapse continued, and the patient died about midnight.

What was the cause of death in this case? Could it have been a case of small-pox, with death from blood poisoning?

The discussion of this case was deferred until the next meeting.

The Society met February 8, 1876, the President, Dr. Comegys, in the chair. The reading of the minutes of the preceeding meeting was dispensed with.

Dr. Comegys said he had recently had under his care four cases of typhoid fever, three of which had recovered, and the fourth was now convalescent. They had been marked by the usual phenomena. They were all kept almost exclusively on milk diet, beef tea being given occasionally. They had had no regular course of medicine. In one case where there was some delirium and diarrhœa and a

great deal of hyperstasis of lung and an increase of fever, grs. xx. of quinine were given at one dose. No other medicine was given. The other cases got some quinine, but Dr. Comegys thought they would probably have done as well without any medication. These were well marked cases of typhoid fever, and ran about the usual course. No stimulants were given and no attention was paid to diarrhœa.

Dr. Carson said many cases of typhoid fever would run their course as well without any medication. Such treatment is not new, but if it was intended to imply that all cases of this disease should be so treated, he thought it would not do to follow such advice. The fact of giving one large dose of quinine may, by controlling the fever for a long time, have been an important one.

Dr. Dandridge gave a brief resume of the case of miliary tuberculosis reported by him at the preceeding meeting.

Dr. Taylor said we do not expect to find destructive processes in the lung in children of that age (two years.) Tubercular deposits most frequently occur in the meninges of the brain; next in frequency in the mesentery and peritoneum; less frequently in the mucous membranes. In the lung the deposits are generally greater near the pleura.

Dr. Comegys referred to the investigations of Klein, who showed that in tuberculosis artificially produced in guinea-pigs, the point of departure is the endothelium of the minute pulmonary arteries, extending thence to the inter-alveolar substance, and finally affecting the alveoli themselves and the peri-vascular lymph vessels; while in the tuberculosis of man the beginning is in the capillary of the air vesicles, and extending to the vessels and peri-vascular canals. The interesting question is, how do these tubercles originate? The tubercular matter, when placed under the skin, is absorbed and carried by the veins to the right side of the heart, thence to the lungs, thus giving rise to disease in the arterioles and then in the venules.

Waldenburg, in his experiments to produce artificial tuberculosis, strained the infecting matter which he employed with aniline blue, and found this pigment afterwards in the centre of the tubercles.

Dr. Dandridge. That tuberculosis is a blood-disease, is proved by the fact that tubercular deposits are found in all parts of the body—a general tuberculosis as well as a localized one, the localized one being due to the absorption of the poisons by the lymphatics.

Dr. Comegys referred to a case of miliary tuberculosis in a man who presented a condition somewhat resembling typhoid fever. His lungs presented no abnormal sounds on percussion or auscultation. After death they were found literally sown with miliary tubercles. This case has been reported to the Academy of Medicine, and one member denied that such a thing could occur. The case he claimed must have presented some physical signs.

Dr. Carson said that he had examined several specimens of lungs,

healthy and diseased, as to their specific gravity. In the case mentioned by Dr. Comegys, which he remembered and had examined, the sp. gr. was not much increased by the presence of the tubercular deposit. Such cases could exist without being recognizable by the physical examinations.

He regretted that in Dr. Dandridge's case there had been no observations as to temperature—an important thing in all cases of lung trouble.

Dr. Taylor thought the last statement of Dr. Dandridge was of more importance than we have been in the habit of regarding it. It is not uncommon to see cases of enlarged glands followed sooner or later by tubercle of the lungs. In the last two years two cases in which tubercle of the lung followed enlargement of the cervical glands had been under his observation. In both cases it was evident that the glandular disease was the primary one. A few years ago it was contended by some that the glands should be removed by cauterization or extirpation.

Dr. Taylor did not advocate this because of the ulcerating sore which would follow the removal, but thought we should give the patient the benefit of every invigorating appliance.

Dr. Holdt thought it doubtful whether enlarged glands were always identical in their nature. Although to appearances similar, the conditions may be entirely different. Tubercle is transmissible by inhalation of particles of tubercles which have been exhaled, but many other irritants are inhaled which do not give rise to tuberculosis. This shows that something more than mechanical irritation is necessary. What has been called miliary tuberculosis is not always identically the same disease.

The Society met February 15, 1876, Dr. Comegys in the chair.

Dr. Mackenzie reported the following cases:

Case I. T. H—, aged 60. I was called to see this patient on the night of February 1, at 11½ o'clock, and received the following history:

He had been a hard drinker until six years ago, since which time he has been quite abstemious. Six years ago he became jaundiced, and vomited a considerable quantity of blood; before that time he had been a healthy man and able to attend to his business, that of a grocer, but since then he has been an invalid and unable to do anything. The hæmatemesis has recurred several times since the first attack, and has usually been accompanied by the passage of blood from the bowels. Four months ago he noticed that there was some enlargement of the abdomen, which afterwards steadily increased. He took, by the advice of physicians, remedies with a view of reducing this swelling, but as these had no effect he was finally tapped. The fluid, however, soon reaccumulated, and he was again tapped, and this operation was performed upon him seven times since the first appearance of the fluid; the last time about

two weeks ago, when, according to the account of his wife, nine pints were removed at the time of the tapping, and the fluid continued to flow for four days afterwards. Lately he has been steadily losing flesh and strength. About eight hours before I first saw him he began to vomit blood and to have bloody stools, which symptoms persisted, and in consequence I was sent for. According to the account of his wife he lost about three pints of blood. I found him to be a feeble looking man, apparently older than his years would indicate. Considerably emaciated and very anæmic. Abdomen very much distended with distinct fluctuation. Mental faculties normal. Pulse 80, rather small and weak. Breathing easy. No abnormal sounds in chest. Complained of thirst and vomited very frequently a thin bloody fluid; no clots. Complained of great weakness but had no pain. He was ordered to swallow small pieces of ice and to take grs. ss. opium and grs. ij. per sulphate of iron every two hours.

I saw him the next morning at 10 o'clock, and was told that the hæmatemesis had ceased after the first dose of the medicine, but he received two doses after. He had slept during the latter part of the night. When I saw him he was slightly delirious, and was constantly moving about the room. When spoken to, however, he seemed to understand what was said to him, and answered, though not always very coherently. He had had a few small bloody stools. His pulse and respirations were unchanged. Pupils of normal size and responsive to light. He was ordered grs. ij. quinine and ʒss. whisky every 2 hours.

He became rapidly more delirious, and by half past eleven he was quite oblivious of what was said to him. He could only be kept in bed by absolute force, and when allowed his own way would wander about the room holding on to the furniture. At eleven o'clock he had a very copious bloody stool, and had some smaller ones afterwards. At one o'clock the restless condition ceased and he became quite quiet and stupid. When I saw him at four o'clock he was lying in bed in a comfortably comatose condition, and was breathing stertoriously. His pulse was 90 and weak; pupils dilated and immovable. As the case seemed hopeless, all treatment was suspended. I saw him again at nine o'clock, the only change being a gradual increase in frequency and diminution in force of the pulse and more decided stertor in breathing.

He died at half past twelve, nothing of note having occurred previous to death.

Case II. J. B. O——, aged 53. Was called to see this patient on the evening of the 10th of August, 1873. He had been a steady drinker for years, not getting drunk, but being always more or less under the influence of alcohol. He had enjoyed good health up to the present attack, except that occasionally he suffered with dyspepsia.

He began vomiting blood a few hours before I saw him, and this had continued up to the time of my visit. He had never been in the slightest degree dropsical.

I found him to be a very fat, but rather unhealthy looking man. He had a bloated appearance, and the superficial veins of the face were enlarged. The liver dullness extended between two and three inches below the ribs and cartilages, in the right hypochondriac and lateral regions. Notwithstanding the thickness of the abdominal wall, its margin could be distinctly felt, and it was evidently very firm and nodulated. He was almost constantly vomiting blood. No pains, no fever. Pulmonary and cardiac sounds were normal. I ordered him small pieces of ice and grs. v. of tannin every two hours.

The next day I saw him in consultation with Dr. B. F. Richardson. The hæmatemesis had not ceased, but was not so frequent or copious. He complained of great weakness. We ordered him two grains of the persulphate of iron every two hours. This controlled the vomiting, but in the evening he began to be delirious, and when I saw him about nine o'clock he was very restless, constantly talking of things which he imagined he saw, and wishing to get out of bed. He did not recognize any one. He was not at all violent. His pulse was becoming frequent and feeble. He was ordered bromide of potassium and whisky.

The delirium continued all that night and the next day; the 12th he became comatose, and died at eleven o'clock.

A post mortem examination was permitted. The liver was very much enlarged, extending two or three inches below the cartilages; no means were at hand to positively determine its weight, but I should have estimated it at seven or eight pounds. It was very firm and nodular, each nodule measuring at its base from one-fourth to one-half an inch across. This nodular condition was general. The color was rather paler than normal. On section, the liver had a yellowish color, as though there was a large quantity of fat in it, and crossing it in all directions were numerous fine white fibrous bands. The stomach contained in the mucous membrane numerous hemorrhagic spots, but no ulcerations. The other organs were normal.

On microscopic examination, there was found to be a large increase in the amount of connective tissue, which formed wide trabeculae inclosing the acini. It was extensively infiltrated with small round cells, containing granular contents; no nuclei can be recognized in them. The acini contained the liver cells and fat globules, but the relative amount of these two constituents varied very much in different parts; some contained little else than fat, others were filled with almost perfectly normal hepatic cells, while others intermediate between these two conditions. But few blood vessels could be distinguished in the section. Both died of cerebral anæmia.

In the last case, the only one in which a post mortem was permitted, there was a condition of liver such as the speaker had never before seen. It was hobnailed in appearance, but instead of being diminished in size, was enlarged, weighing seven or eight pounds.

In looking over the literature of this subject, Dr. M——, failed to find any case of *true* cirrhosis reported where there was such marked enlargement. This enlargement was due to increase of fibrous tissue, and probably also to infiltration of fat.

Microscopic preparations were exhibited to the Society.

Dr. Comegys said he did not believe in the doctrine of cerebral and spinal anæmia, as taught by some of our authorities. In a true case of anæmia, what must be the condition of the capillaries? They must be reduced in size to a minimum. In many of the so-called cases of anæmia, this condition does not exist, but there is an opposite condition—a condition of overflow from atony of the walls; we have the conditions to produce atony. There is in these cases slowing of the circulation, dementia, deliriums; following these symptoms we find the “wet brain.” Dr. C. did not accept the doctrine that these symptoms depend on anæmia of the brain.

In the second case, Dr. Mackenzie admits that there was overfilling of the vessels from the use of alcoholic liquors.

Dr. Mackenzie—In regard to cerebral anæmia there are several conditions in which it may be found. A blood-clot can only be formed in the brain at the expense of blood in the capillaries. In like manner a tumor in the brain by pressure causes anæmia. Loss of blood causes anæmia of the brain as well as of other parts of the body. In regard to the “wet brain,” that is a condition which we would expect to find where there was a small quantity of blood in the brain, the fluid in the spinal cavity being forced upward to the brain by atmospheric pressure.

Dr. Comegys. Cerebral anæmia may be produced by embolism. In such cases we will have some impairment of function, as convulsive movements, etc. Animals bled to death have these convulsive movements. Because of failure of the powers of the heart we have atony of vessels. In death from hemorrhage the capillaries are not emptied as the large vessels are, but are in a condition of atony.

Dr. Comegys asked what was the pathology of ascites in these cases.

Dr. Mackenzie thought it was due to the obstruction to the return of blood. In some cases the obstruction is so great as to result in rupture of the small vessels. In the case of a young woman, 13 years of age, who died of cirrhosis, the liver was found to be very small and the spleen enormously enlarged. The enlargement is due to the obstruction to the return of blood through the liver.

Dr. Culbertson said he had been called sometime since in consultation to see a woman who had ascites. She was tapped at the second visit, and one and a half bucketfuls of serum removed, after which the nodulated liver could be felt. The heart sounds were good. The kidneys acted perfectly. With the exception of the diseased liver, nothing abnormal was found. She was tapped every ten days for about four months, generally drew about a bucketful of serum. After death the liver was found cirrhotic and smaller

than usual, and the spleen enlarged to nearly twice its usual size.

Dr. Comegys asked what treatment had been found most successful before resorting to paracentesis.

Dr. Mackenzie said that within the last two years he had seen two cases recover. One was a patient well-advanced in life. He had had dysentery for some time, and was much debilitated; then had ascites. Comp. jalop powder was given twice a day with tonics. The same treatment has been adopted in the second case. In this case there was extreme tenderness over the hepatic region, probably due to circumscribed peritonitis.

Dr. Culbertson said that in the case reported by him, elaterin was prescribed.

Dr. Hough reported a case which he had treated; a man 55 years of age, of good habits, had moderate ascites. In early life he lived in a malarious region; he had evidence of enlarged spleen. After death the liver was found to be about two-thirds of the normal size and cirrhused. The spleen weighed three pounds and seven ounces. Eleterium had been given in the later stage.

Dr. W. Judkins reported a case of heart disease with oedema of the legs, in which elaterium was given with the result of relieving the distressing symptom.

Dr. McReynolds had used comp. jalop powder in a case of ascites with the effect of relieving the distension, but on leaving off the medicine it returned. The patient was tapped and tonics given. The dropsy returned, but subsided on the administration of the jalop.

Dr. Culbertson reported a case of a boy about eight years of age who had cirrhosis of the liver, attended with ascites to an unusual extent. The boy lived to be thirteen years of age—the dropsy sometimes increasing, sometimes decreasing. This patient did better on large doses of tr. ferri. mur. than on any other remedy.

Dr. Comegys said it is desirable to reduce the bulk in the disease. Having gone through the list of remedies he had finally settled down on elaterin. It is a severe remedy and must be used with caution—tonics being given at the same time. He gave 1-12 to 1-8 gr. elaterin with hyoscyamus before breakfast. He had found no remedy comparable to it in dropsy due to cirrhosis.

Dr. Mackenzie said that in some cases elaterium is so irritating that we have to discontinue its use.

Dr. C. P. Judkins said that he had seen great relief given in cases of anasarca of the lower extremities by puncturing the skin. In a case of ascites which he had seen with *Dr. Vattier*, elaterium was given with happy results.

Dr. Culbertson said he had seen cases of anasarca under the care of *Dr. Flint, sr.*, treated by puncture with great relief.

The society then adjourned.

The Society met February 22, 1876, the President *Dr. Comegys* in the chair.

Dr. Comegys reported a case of obesity which he had under his care.

A man about 33 years old, 5 feet 6 inches high, weight 240 lbs. He is a manufacturer, and is much embarrassed by the superfluity of adipose tissue; since becoming so large he has had two epileptoid convulsions.

He had been under the treatment of a homœopathist, but not getting any relief he came to this city and consulted *Dr. Comegys*, who placed him under the course of diet and training similar to that adopted by the trainers of athletes. Taking the suggestion from the thesis of *Dr. Worthington*, he directed steady, well regulated muscular exertion, as wood sawing, walking four miles per day, &c.; his diet to consist of lean meats, a small quantity of bread, tea, and vegetables containing no starchy or saccharine matter; fats, coffee, milk and water were excluded. The treatment was commenced by purging him with sulpt. magnesiae.

The patient formerly lived in a gross way, had a voracious appetite, drank much water, and smoked 10 to 12 cigars per day—the latter was cut down to three half cigars per day.

He has been under treatment since Christmas and now reports that he has been reduced to 208 lbs., a loss of 32 lbs. in less than two months. He has had one slight convulsive attack since the treatment was commenced, but it passed off sooner than his previous attacks.

Dr. C's purpose was to reduce him to 200 lbs., then see him and decide whether it would be prudent to reduce him to 180 lbs.

Dr. Mackenzie said that it seemed strange to him that drinking water should increase the quantity of fat, since it is a well known fact that it increases the excretions, but it is excluded by the trainers. Obese persons drink much, but he is at a loss as to whether the drinking is not rather an effect than a cause of obesity.

Dr. Carson referred to the epileptoid attacks. He mentioned a case reported by *Dr. Jackson*, of Philadelphia, of a patient who was placed on a low diet to try its effect upon epileptic attacks. The effect was to reduce the number, and they eventually ceased for a long time, but from some indiscretion he had a convulsion from which he died. This patient had been confined mostly to a vegetable diet.

Dr. Comegys said that in the case he had reported there were no aura. All the attacks occurred at night, since he had been dieted his breath, which had for a long time been offensive, had lost its fetid qualities. He remembered the case reported by *Dr. Jackson* (referred to by *Dr. Carson*). *Dr. Jackson* was very enthusiastic over the progress his patient made, but from some infringement of his rules diarrhoea supervened and a fatal attack ensued. *Robin* has referred to the fact that the use of water increases the weight, but he says he can not explain the method unless it acts by diluting the ingesta, thus facilitating their absorption.

The Cincinnati Medical Society met March 7th, 1876, Dr. Comegys in the chair. The minutes were read.

Dr. Comegys said he had heard again from the case of obesity reported by him at the last meeting. On the night of 22d ult., he had two convulsive attacks, slight compared with the preceding ones. It will be remembered that the patient had been an excessive smoker, but his daily allowance had been cut down to three half cigars. On the evening preceding the last attack he smoked two cigars, what relation this may have had to the attacks, the speaker could not say. He had heard nothing from him since. He has had no report as to his weight.

Dr. Mackenzie asked Dr. C. whether tobacco had anything to do with the increase of fat.

Dr. Comegys thought not, but the abuse of it rendered his patient more liable to epileptoid convulsions.

Dr. Dandridge presented a specimen illustrating the process of central necrosis. The case was one in which, for a compound fracture at the knee-joint, Dr. Miller had amputated through the lower portion of the femur. There was considerable thickening about the stump, which had not healed, when the case again presented at the hospital, two openings remaining, one near the upper part of thigh. Dr. Muscroft opened up the wound and found a portion of the shaft necrossed. This he attempted to remove but finding it difficult, he cut off the bone above the sequestra.

Dr. Mussey thought the sequestra might have been removed by cutting away some of the new bone and as this procedure would have given the patient the benefit of a longer stump, it would have been the better method. In two cases in which he had removed sequestra from the shaft of bones, the wound had healed up, and useful limbs remained. In such cases it was not necessary to remove any more of the new bone than is necessary to withdraw the sequestra.

Dr. Dandridge said that the nature of the trouble was not fully understood until the bone had been macerated and sawed open.

Dr. Mussey thought it advisable to save as long a stump as possible, and the ease with which these sequestra can generally be removed would have led him to make the attempt.

In amputations such as this he always bevels off the edges of the bone, which does not appear to have been done in this case, as it renders the bone less liable to irritate the soft parts and cause disease of the bone.

Dr. Dandridge presented some pathological specimens removed from a patient of whom he gave the following history, taken from the clinical records of Cincinnati Hospital:

B. Washington, colored, age 24, from Kentucky, laborer and single, entered the house February 10th, family history good. Three years ago was treated in the hospital for Fistula-in-ano. Health since then good, until two weeks ago, since which time he has suffered from rheumatic pains in arms and shoulders. Last

Wednesday had a chill followed by fever. He moreover states that some days ago he passed some gravel.

Physical condition—A well nourished man, with good muscular development and of average size. Tongue coated, bowels constipated and complains of some pain over the liver.

Feb. 11th, complains of violent pains in the abdomen. Ordered a dose of salts, and half a grain of opium every three hours, and the tender spots to be painted with iodine.

5 P. M., feels better, pain not so severe.

Feb. 12th, temperature $99\frac{1}{2}$. Gave him an injection. Bowels well moved, which made him feel somewhat better.

1 P. M. temperature 103° . Complains of trouble in passing his water. Drew off two ounces with relief.

Feb. 13th, temperature down.

Feb. 14th, feels better, still some pain.

5 P. M., much better, appetite good, bowels regular. The nurse says that he became very restless during the night, he died suddenly at 4 30 A. M.

Post mortem examination revealed both heart, and lungs normal. The kidneys, the left, which I here show, is surrounded by a dense mass of adipose tissue which is so firmly adherent to the kidney that it can not be separated. On section of the organ, little remains that can be recognized as renal tissue. The calyces are all greatly dilated at the expense of the surrounding tissue, and in the center of the organ is a quantity of fat.

The ureter did not appear to be enlarged and the opening into the bladder was pervious. The right kidney was large and weighed eight and a half ounces, it was paler than normal.

The liver was studded upon its surface with small masses of a yellowish white color and in a few places small abscesses presented. The masses were scattered equally over the organ and were of the average size of a pea. On section similar masses were found everywhere throughout the organ.

Microscopic examination showed the hepatic cells somewhat granular, but otherwise healthy. The smaller branches of the portal vein and hepatic artery were found filled with a granular mass, in the larger this plugging was not observed.

The spleen was quite normal. The mesenteric glands were somewhat enlarged. The mucous membrane of the intestine was normal. The bladder contained a quantity of clear colored urine. The brain was normal.

It is somewhat difficult, Mr. President, to form a rational theory of the disease from these facts. The kidney evidently was the primary seat of trouble, and this was of long standing and most probably was caused by a renal calculus obstructing more or less completely the ureter. The masses in the liver, I judge, to be of embolic origin. This, however, is somewhat difficult to understand, for the kidney is without the range of the portal circulation, and therefore embolism of the lungs would naturally precede the trouble

in the liver. No such condition existed, though the lungs were carefully searched for evidence of it. Again, one would naturally suppose the origin of such embolism, must have been an ulcerated surface—this could not have been so, otherwise the urine would have contained pus, whereas that found in the distended bladder was perfectly clear.

In spite of these difficulties I can only explain the masses in the liver as due to embolism and the death as due to septicæmia. This view the facts of the clinical history lend strength to—the high and variable temperature, the pains complained of, and finally the sudden death may be well so explained.

Dr. Taylor said there evidently had been dilatation of kidney, probably from some obstruction which may at one time have existed. He thought the fat around the kidney was of inflammatory origin. It is common to find fatty degeneration as the result of inflammatory processes.

There is great difference between fat about an organ and fatty degeneration of an organ. He thought the explanation of the cause of death given by *Dr. D.* not satisfactory. The want of connection between the kidney and the veins of the liver would contradict the theory of embolism from that source, but *Dr. D.* has referred to some enlarged mesenteric glands, which may have been the source of emboli.

Dr. Mackenzie said he had seen many cases in which there was a deposit of fat around the kidneys, but he had never seen a case where the fat was so intimately blended with the kidney substance. There must have been some previous condition to give rise to so great a deposit of fat. He did not think it due to fatty degeneration. The fever was not long enough continued to give rise to such fatty degeneration of the heart as to have caused death.

The greater relative size of the pulmonary capillaries, as compared with those of the liver, might have permitted the passage of an embolus through the former, which would be arrested in the latter. An interesting point in this case is the enlargement of the right kidney. He had made a few years ago, a report to the Academy of Medicine, on a case presented by *Dr. Goode*, in which there was compensatory enlargement of one kidney, and he had since seen two cases, one of renal calculi, and one of disease of one kidney, where such enlargement took place.

Dr. Mussey said he had seen a case, where only one kidney was found—that one being unusually large.

In answer to a question *Dr. Dandridge* said this case had been treated as one of rheumatism.

Dr. Carson said there were several interesting points in this case. 1st. as to the character of the disease. Judging from the symptomatology it would seem to be only another instance where the term rheumatism is misapplied. He would class it as a case of pyæmic condition. The range of temperature, with the autopsy show that it was not an ordinary case of rheumatism.

Another interesting point is the sudden death. The speaker disagreed with the Dr. Taylor, as to fatty degeneration. The history was too short. The fever did not last long enough to give rise to fatty degeneration of heart to such a degree as to cause death.

Dr. Dandridge said that a week or ten days before this patient was admitted, another patient came in who presented a somewhat similar condition. This patient also died suddenly, upon examination the only marked lesions found were three or four small abscesses in the lungs. He did not think that in the first case there was fatty degeneration, but only an increase of the fat ordinarily found around the kidney.

Dr. Mussey reported three cases of hernia which had recently been under his care. The first was that of a stout german, 30 years old, who had an enormously large scrotal hernia. He had had it for a long time but had always been able to return it until the present time. It had been down for several days before he came under Dr. Mussey's care, and although he had had no passage from his bowels, he had no alarming symptom. After several unsuccessful attempts had been made to reduce it, Dr. M. ordered hot poultices to be applied (ice had previously been tried). After these had been applied for sometime he was taken to the operating room and arrangements made to operate, if attempts at reduction were again unsuccessful. In placing him upon the table the hernia disappeared. In another case, that of a german man, a strangulated hernia had existed for three days, urgent symptoms had occurred previous to Dr. M. seeing him, and injections had been given without producing any evacuation. When Dr. M. first saw him the symptoms not being urgent a hypodermic injection of morphia was given and hot poultices applied. Failing in an attempt at reduction after this, he ordered the injection of one gallon of water into the rectum, the hips being elevated. In the afternoon another attempt at reduction was made, but without success. Preparations were then made to operate, but while lifting him upon a lounge the hernia disappeared. The third case was that of an old man, who had an enormously large hernia. Dr. M. saw him on the second day and having failed in attempts at reduction he applied hot poultices and called the next morning. As it could not then be reduced he proceeded to operate, on laying open the sack the mesocolon was seen much thickened, hard and immovable. There was also a secondary hernia of the descending colon. The point at which the strangulation was supposed to exist was divided, but he could not reduce the tumor. Chloroform to the amount of $\frac{3}{4}$ ss. was administered by inhalation, but symptoms of an unpleasant character arising its use was discontinued. In his movements more of the intestine was thrown out and a sphacelated portion of it was found to be ruptured. Death followed in a few hours.

Dr. Murphy said that about seven weeks ago a man 40 years old, 6 feet high, of uniformly good health, whose occupation was that of assorting hair, called at his office complaining of redness, pain

and swelling of the side of the neck, between the left mastoid process and the vertebral column. It was puffy and presented a little the appearance of erysipelas. An application of lead-water was ordered. When the patient called the next day the surface was raised about the size of a silver dollar and black. Poultices were ordered, and quinine and iron given. The slough finally fell out and the patient recovered. Dr. M's theory was that the man had poisoned himself while assorting hair.

Dr. Taylor said that a butcher while slaughtering healthy animals, cut himself recently across the thumb, apparently cutting into the joint. Extensive inflammation followed, involving the entire hand and two-thirds of the fore-arm. Almost no constitutional symptoms followed, and except that the pain prevented sleep, there was scarcely any disturbance. The inflammation subsided without any suppuration except about 5j. of laudable pus. *Dr. T.* saw the patient a few days ago. The swelling had subsided and the thumb had returned to its original size. He could account for the trouble only by the introduction of some animal matter which underwent decomposition after it was introduced.

Dr. W. B. Davis said he was reminded by *Dr. Mussey's* cases of a soldier in his regiment who had hernia. He wore a truss, but occasionally left it off. On one occasion the hernia could not be reduced, and recourse was had to hot poultices. In three hours it was reduced without any trouble.

Dr. Mackenzie reported the following case:

Mr. E. G—., aged 18 years, a moulder.

I first saw this patient on November 15, 1875. He gave the following history:

Fifteen months ago he had gonorrhœa, and an enlarged gland in the groin. The gonorrhœa continued for two months, but the bubo disappeared in a few days. After the gonorrhœal discharge ceased he remained in perfect health, until eight months ago, when he noticed that when at work at his trade the left side of his body sweated more profusely than the right. At the same time he experienced a sensation of throbbing over the body; which was, however, more marked on the left side. Soon after he noticed that the veins of his left hand were more distended than those of his right. Three months ago the sight of his right eye became somewhat impaired, and he experienced some difficulty in raising the upper eyelid on the right side. His general health has been good. Has never had any symptoms of constitutional syphilis.

Upon examination he presented the following conditions:

Apparently a well-nourished lad. Marked ptosis of the right upper eyelid, so that it covered half of the pupil. He said that the sight of the right eye was not clear, yet he was able to see objects near at hand, as well as those at a distance, and *visa versa*. There was no photophobia. The right pupil was slightly more dilated than the left, but both were quite movable, and active on the admission of light. He complained of a sensation of throbbing

over the whole body, rather more on the left side, and pain in the head not localized to any particular part. The veins of the left arm and hand were somewhat larger than those of the right, and the left radial artery was slightly fuller than the right. No difference in the apparent vascularity of the two sides of the body. When I first saw him he was not sweating at all, so that I could not judge in reference to this point. Heart sounds were quite normal. Pulse 80, moderate force and fullness. Tongue clean. Moderate appetite. Bowels regular. No paralysis of any muscle except the levator palpebræ superioris of right side.

I first saw the patient a few days before the above history was fully obtained, and supposing from a rather cursory examination (being in a hurry at the time) that possibly the troubles of which he complained might have a syphilitic origin, I ordered for him 10 grs. of iodide of potassium, and one-sixteenth grain of corrosive sublimate three times daily.

Upon a more full investigation of the case, however, I was convinced that he had never had syphilis, and consequently told him to omit the anti-syphilitic treatment, from which he had not been in the slightest degree benefited, and ordered for him instead 3 i of fluid extract of ergot every four hours.

On December 13, the following note was taken:

Has been taking the ergot pretty regularly since I first prescribed it. The sweating continues about the same, as does also the throbbing over the body; but the sight and the ptosis have greatly improved—the latter is now hardly noticable. The veins seem still rather larger on the left. Has but little headache now. On the twenty-fifth of last month I examined the fundus of his eyes after dilatation with atropine. I found the disks somewhat congested, but there outlines were quite distinct, and otherwise they seemed perfectly normal, presenting the same appearance on the two sides. General health good. As his condition for the last few days has not been changed, I have ordered him to stop the ergot, and to take one-sixteenth gr. of strychnia, and two grains of quinine three times daily.

On December 21 the following was noted:

Says that he feels about the same as at last report. He sees now as well with the right as with the left eye, and there is but very slight drooping of the lid. The throbbing still continues, but he does not think it so annoying as when he was first observed. The unilateral sweating remains as before. The temperature on the left side is not, according to his own sensations, greater than on the right. Taken with the thermometer, it is 96.2° in the bend of the elbow on the right, 96.8° in the same situation on the left. Mental functions, movements, and sensations, perfectly sound. To discontinue all medicine, and to have the constant current applied to the neck, so as, if possible, to stimulate the sympathetic nerve.

The constant current was applied for from twenty minutes to half an hour every other day, from the 21st to the 28th of Decem-

ber. About twelve or fourteen cells were employed. From the 28th of December to the 5th of January the application of the constant current was followed by that of the faradic, and from the latter date until the 9th of January the faradic alone was used. At that time it was noted that he had improved very much. There was still some sweating and throbbing, but both were less marked than formerly. On several occasions I saw the unilateral sweating very distinctly. The left eyelid still drooped to a very slight extent. His general health was excellent.

The treatment with the electricity, generally both forms being used, was continued up to the 30th of January, after which he ceased coming. For the last two weeks there was no improvement, indeed he said that the sensation of throbbing was more annoying than before.

This seems to be a case of paralysis of the vaso-motor nerves. The sensation would seem to be the same as that produced by the inhalation of nitrate of amyl. In this case all forms of treatment seemed to have a good effect for a time, but ceased after a while. The improvement was probably due to the effect on his mind.

Dr. Carson said Dr. M. had not given his reasons for thinking there was no syphilitic taint. It is a matter of doubt whether there may not have been some trouble of that kind. He would have pushed the anti-syphilitic treatment. He thought the throbbing of the vessels was due to paralysis of the vaso-motor nerves. He referred to the difference of temperature on the two sides. In a case of lung trouble, where there was flushing of one cheek, he found a difference of 6° ; one cheek being unusually low, the other high.

Editorial.

American Medical Association.

The Twenty-seventh Annual Session will be held in the city of Philadelphia, Pa., on Tuesday, June 6, 1876, at 11 A. M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by *representation in their respective State Societies*, and from the Medical Department of the Army and Navy of the United States."

"Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number; *Provided*, however, that the number of delegates for any particular State, territory, county, city, or town shall not exceed the ratio of one in ten of the resident

physicians who may have signed the Code of Ethics of the Association."

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates, in order that the Committee of Arrangements may be enabled to form some idea of the number likely to be present.

SECTIONS.—"The Chairmen of the several sections shall prepare and read in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective sections.****"

—BY-LAWS, Art. II., Sect. 4.

Practice of Medicine, Materia Medica, and Physiology: Dr. FRANCIS G. SMITH, Philadelphia, Pa., *Chairman*. Dr. B. A. VAUGHAN, Columbus, Miss., *Secretary*.

Committee appointed to report to this Section—On Clinical Observations: Dr. N. S. DAVIS, Ill., *Chairman*. Dr. H. A. JOHNSON, Ill., Dr. J. B. JOHNSON, Mo.

Obstetrics and Diseases of Women and Children: Dr. S. C. BUSEY, Washington, D. C., *Chairman*. Dr. ROBERT BATTEY, Atlanta, Ga., *Secretary*.

Committee appointed to report to this Section—On the Connection of the Hepatic Circulation with Uterine Hyperæmias, Fluxions, and Inflammations: Dr. L. F. WARNER, Mass.

Surgery and Anatomy: Dr. ALONZO GARCELON, Lewiston, Me., *Chairman*. Dr. E. T. EASLEY, Dallas, Texas, *Secretary*.

Medical Jurisprudence, Chemistry, and Psychology: Dr. E. LLOYD HOWARD, Baltimore, Md., *Chairman*. Dr. V. L. HURLBUT, Chicago, Ill., *Secretary*.

State Medicine and Public Hygiene: Dr. R. C. KEDZIE, Lansing, Mich., *Chairman*. Dr. EZRA M. HUNT, Metuchen, N. J., *Secretary*.

Committee to report to this Section—On Form of Bill to Establish a National Department of Public Health at Washington: Dr. H. B. BAKER, Mich., *Chairman*. Dr. H. A. JOHNSON, Ill., Dr. J. M. TONER, D. C.

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his section, to determine the time and order of their presentation, and give due notice of the same. ****"—BY-LAWS, Art. II., Sect. 5.

The following Committees are expected to report:—

On Mechanism of Accommodation of the Eye: Dr. D. S. REYNOLDS, Ky., *Chairman*. On New Remedies: Dr. AUSTIN

FLINT, Jr., N. Y., *Chairman*. On the Medical and Surgical Uses of the Aspirator: Dr. E. S. GAILLARD, Ky., *Chairman*.

On Influence of Climate on Pulmonary Diseases in Minnesota: Dr. FRANKLIN STAPLES, Minn., *Chairman*. On the same in Colorado: Dr. CHAS. DENISON, Col., *Chairman*. On the same in Florida: Dr. E. T. SABAL, Fla., *Chairman*. On Proper Legislation to Prevent the Spread of Syphilis: Dr. SAMUEL D. GROSS, Pa., *Chairman*. On Prize Essays: Dr. SAMUEL D. GROSS, Pa., *Chairman*. On Necrology: Dr. S. C. CHEW, Md., *Chairman*. On Rank of Medical Corps of the Army: Dr. H. A. JOHNSON, Ill., *Chairman*.

W. B. ATKINSON, *Permanent Secretary*.

The paper on "Alcohol as an Anæsthetic" should be credited to Prof. John Lynk, of Terre Haute, Ind.

The new Board of Police Commissioners elected Dr. T. H. Kearney Health Officer for the ensuing year.

As we go to press we find a number of Reviews of New Books are crowded out; they will appear next month.

We are in receipt of a Prospectus of the Ohio Medical and Surgical Journal, with the announcement that Prof. J. H. Pooley is to be the editor. The Journal is to be a bi-monthly.

Reviews and Notices.

On the Nature of the Gouty Vice. By W. H. DRAPER, M. D. No. 12. American Clinical Lectures. An exceedingly interesting paper.

The author has treated his subject from an altogether physiological stand point. The first part of the lecture is devoted to an elaborate explanation of the causes inducing gout. Mal-assimilation of the nitrogenous elements of the food being a principal factor; oxidation of these elements being interfered with, there is a marked diminution of the amount of urea excreted, while an excess of uric or lithic acid is formed; which, combining with the alkaline bases, especially soda, enters the circulation and are eliminated in large amount by the kidneys, and in addition are distributed largely through the tissues where, being almost insoluble, they give rise to mechanical irritation. The author then notes the various disturbances arising from and dependent on the gouty diathesis. The reader will be astonished to find the number of diseases for which

the gouty vice may be held responsible ; almost all the ailments to which the flesh is heir to have been classed by the author in this category : Dyspepsia, with alternating constipation and diarrhœa ; palpitation and irregularity of the heart ; oppressed breathing and respiration ; from multi-nervous symptoms ; hypocondriasis and hysteria ; vesical irritability and neuralgia of the urinary passages ; certain functional derangements of the nervous system, headaches, etc. ; the mucous membranes are the seat of morbid changes, catarrhal affections of the air passages, spasmodic asthma ; gouty or rheumatic forms of conjunctivitis and iritis ; lesions of the gastro intestinal mucous membrane ; catarrh of the alimentary canal ; aphthous ulcerations of the tongue, sub-acute gastritis ; jaundice, duodenal catarrh, colic, hemorrhoidal engorgement, etc. ; uterine derangements, irregular menstruation, painful menstruation, profuse menstruation, uterine and vaginal catarrhs ; gouty subjects who have contracted gonorrhœa suffer from a consecutive gleet, etc. ; lesions of the skin, erythema nodosum, purpura rheumatica, boils, carbuncles, psoriasis, exzema, acne, etc., quinzy, sore throat, pneumonia, cirrhotic kidneys and liver, with concomitant atheromatous affections of the arteries and valves of the heart, with the attendant ventricular hypertrophy, etc. ; together with numerous other morbid conditions, are only a few of the protean manifestations evinced in the victims of the gouty vice. The sufferer from gout, if he should happen to peruse Dr. D's paper, must feel horror struck at the future complexity of symptoms liable to be developed in his case. The latter part of the lecture is very valuable. The regulation of diet, based on the physiological study of the affection ; the uses of alkalies and iron in their various forms, and the hygienic rules laid down for the benefit of the patient can be studied by every physician with advantage.

T. C. M.

On the Diagnosis, of Disease Accompanied with Real or Apparent Paraplegia, Without Marked Muscular Degeneration. By H. C. WOOD, M. D., No. 11, American Clinical Lectures.

The author treats his subject in an admirable manner ; this paper is free from verbosity, and the ideas of the writer are clearly and concisely set forth. It literally lacks that obscurity of style so strikingly apparent in the essays of certain Eastern Nerve Disease Specialists, and for this reason will find many readers. Dr. Wood's lecture is one of the very best of the series.

T. C. M.

Post-Nasal Catarrh, By BEVERLY ROBINSON, M. D.

The author treats at length this exceedingly obstinate affection. He recommends the internal use of sulphur waters and cubebs, as they are eliminated in part from the mucous membrane of the throat and nose, and are highly beneficial in most cases. Dr. Robinson does not seem to have much confidence in the local plan of treatment so commonly followed, for two reasons : 1st, there is no

instrument in use that will bring medicated spray in contact with all parts of the Schneiderian membrane. 2nd, applied in the manner usually employed, they *cannot* be of any great service. The paper is very readable and instructive. T. C. M.

The Medical Jurisprudence of Insanity, By J. H. BALFOUR BROWNE, Esq., Philadelphia. Lindsay & Blakiston, 1876. For sale by Robert Clarke & Co.

This book has been written from a purely legal standpoint. In discussing the question as to what constitutes a test of insanity, the author says it is not a test of insanity that is required, but only a test of legal insanity or responsibility. Writing from the standpoint of a lawyer, the author carries the principle of *stare decisis* to its fullest extent. The rule laid down by the judges in the McNaughten case was, that to establish a defense on the ground of insanity, it must be clearly proven that at the time of committing the act the accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know he was doing what was wrong. At the time this rule was announced, Lord Brougham objected to it because it was left doubtful whether the word wrong meant morally wrong or forbidden by law. The rule has since that time been condemned by eminent jurists, by some as being ambiguous, by others as not being a true test of legal insanity. To Mr. Browne the rule laid down by the judges appears to be the best and most perfect rule which has been or can be laid down. On one point Mr. Browne has gone, we think, beyond the point to which even the most conservative principles of law would lead him. It is an old and well-established rule of criminal law that the defendant is required to overthrow the case made against him, by only a preponderance of the evidence. In reference to the defense of insanity, Mr. Browne would make an exception, and would compel the accused to overthrow the presumption of sanity by proving his insanity beyond a reasonable doubt. If Mr. Browne's rule were adopted, it, in conjunction with the universal prejudice against insanity, would bring about a practical denial of justice in cases where the defense could be honestly pleaded. However much we may differ from the author's opinion, we can not but admire the spirit in which he writes. He maintains his views, not by dogmatic assertion, but by acute reasoning. Having been written in a true scientific spirit, the book is a valuable contribution to the literature of the medical jurisprudence of insanity.

As to the printing of the book, we notice a mistake which is more annoying to the publisher than to the reader. The author's name is Browne; on the back of the book it is printed Brown.

Micro-Photographs in Histology, Normal and Pathological. By CARL SEILER, M. D., in conjunction with J. Gibbons Hunt, M. D., and Joseph G. Richardson, M. D.

The work will be issued in monthly numbers, each containing at least four plates with descriptive letter-press; twelve numbers to form a volume. The contents of the first three numbers will be as follows:

- No 1 (April).—Plate I, Section of human skin, transversely through the hair-bulbs. Plate II, Epithelioma of lower lip (pathological). Plate III, Pavement epithelium, from a triton. Plate IV, Endothelium, from diaphragm of a guinea-pig.
- No 2 (May).—Plate V, Elastic connective tissue. Plate VI, Scirrhus of mammary gland (pathological). Plate VII, Non-elastic tissue, from omentum of a cat. Plate VIII, Connective tissue corpuscles, from cornea of a frog.
- No 3 (June).—Plate IX, Section of fœtal bone. Plate X, Enchondroma (pathological). Plate XI, Hyaline cartilage. Plate XII, Transverse section of bone, injected.

The high scientific standing of the medical gentlemen connected with the publication is sufficient guarantee of its value to the profession at large. It is the only publication of its kind.

The plates and letter-press printed on fine, toned paper. Size of the page, 9 x 11 inches. Each number in a neat cover.

Price of sparate numbers, 60 cents each. Sent postpaid by the publishers at \$6.00 per annum.

All communications should be addressed to J. H. COATES & Co., Publishers, 822 Chestnut St., Philadelphia, Pa.

Determination of the Refraction of the Eye by means of the Ophthalmoscope. By EDWARD G. LORING, M. D., New York. Wm. Wood & Co., N. Y.

In this pamphlet of 61 pages we have the most concise, simple, and satisfactory instruction for the use of the ophthalmoscope which we have ever seen. It should be in the hands of every student who aspires to the use of this invaluable instrument. The propositions laid down for the examination of the refraction of the eye are so plain that any one of ordinary intelligence can comprehend them. As "advance sheets on the ophthalmoscope," we welcome them with great pleasure.

A Manuel of the Disease of the Eye. By C. MACNAMARA, F. C. U., Surgeon to the Westminster Hospital. For sale by Robert Clarke & Co. Price \$4.50.

The third edition of this valuable work is now out. As a book of ready reference on diseases of the eye it has no superior, and we may safely say no equal in our language. The side-notes make it particularly valuable to the busy practitioner, who cannot take

the time to read several pages when looking for instruction on a particular point. This edition has undergone a thorough revision by the author, who has returned from Calcutta to his former home in London. It has kept pace with the advancement in ophthalmology to the present day, and can safely be relied on as a book of reference.

Obituary.

THE LATE DR. STEPHEN BONNER.

ACTION OF THE MEDICAL PROFESSION ON HIS DEATH.

A meeting of the physicians of this city was held at the Congregational Church, at the northeast corner of Eighth and Plum streets, April 4th, for the purpose of taking action on the death of Dr. Stephen Bonner.

The gathering was quite large, and the most profound regret was expressed by all at the sad event which had occasioned the meeting.

Dr. M. B. Wright was called to the chair, and Dr. T. H. Kearney acted as Secretary.

A committee was appointed on resolutions, consisting of Drs. Murphy, Muscroft, Lawson, Tate, and Dawson. The committee reported the following:

"Dr. Stephen Bonner is dead! In him the profession loses one of its oldest members. For quite forty years, in summer and winter, day and night, he has labored successfully and faithfully. Generous and benevolent even to a fault, and to all men, he was the upright and high-toned gentleman in his relations to his brethren. Few men exhibited through so long a professional career the kindly manner, benevolent disposition and honest action of Dr. Bonner.

"He was the friend of the poor: and in saying this we scarcely express the arduous labor and kindly disposition of the man in serving those who, really poor, are without friends and money. No one was turned away from his door, if health permitted him to serve them. He enjoyed the confidence, in his best days, of a large number of the people of this city. His success as a physician was excellent, and to those of us who enjoyed his friendship for the last thirty years it is a pleasure to remember him as a good physician.

"*Resolved*, That in the death of Dr. Bonner the city of Cincinnati loses a good citizen, and the medical profession a most useful and successful member.

"*Resolved*, That a copy of these resolutions be published in the daily papers and medical journals of the city.

"*Resolved*, That a copy be also sent to the family of the deceased, with the sympathy of the profession in their bereavement."

Remarks on the resolutions being in order, Dr. J. H. Tate spoke of the pleasure he had enjoyed in the acquaintance of Dr. Bonner for a period of many years, and dealt particularly and eloquently on his kindness of heart—his most prominent characteristic. He was a genial, noble, warm-hearted man. The tide of his benevolent heart had no ebb, but flowed constantly for the benefit of others, without a throb for self. In all directions it carried benefits—in all walks of life alike. As citizen and man he did his duty, even to the giving up of his first-born to the service of his country. His religious principals, whoever may differ with him, were conscientiously held. Such a nature, we must believe, will find its home in the effulgent presence of its Creator.

Dr. Ludlow said he had often met Dr. Bonner in consultation, and ever found him the true friend of professional brethren. He was always the conscientious and affable gentleman. But nowhere did his character shine more brightly than in the humble abodes of the poor.

Dr. Murphy was the next speaker. He said: It was my pleasure to make the acquaintance of Dr. Bonner in 1838. But few are now left of the men of that period. Dr. Bonner was one whose character was of the broadest, and reached all, both rich and poor. His amiability was another prominent characteristic, so that he was but little disposed to notice the faults of others, and always more ready to forgive a wrong than to resent it. In consultation he invariably and scrupulously carried himself as a high-toned gentleman, ever ready to protect others from suspicion or unfavorable impressions. His life was marked with continuous kindness and generosity, not only to his own kith and kin, but to all others who were in need. His indifference to money-making was a prominent trait, as he was a modest charger, even in the cases of those who were abundantly able to remunerate him. It was in obstetrical practice that Dr. Bonner was most distinguished, though he was otherwise a good physician, being a sound adviser, and prompt to act in an emergency. I have great reason to remember him for his many acts of kindness to myself, and because of his high character. We have always reason to mourn the loss of a high-toned gentleman, and such places as that left vacant by Dr. Stephen Bonner are not easily filled.

Dr. Muscroft briefly expressed his concurrence in all that had been said by others as to the kindness and goodness of Dr. Bonner, adding that he was always charitable, more often regretting the faults of others than condemning them.

Dr. W. T. Brown bore warm testimony to the character of the deceased; speaking particularly of him as a true friend to young physicians, who could always rely on his advice and encouragement when in trouble. The night was never too dark or stormy, or the distance too great, to hinder him from going to the assistance of a younger professional brother. He was, also, most especially the physician of the poor. The innate kindness of his heart would not

allow him to refuse to visit any one when called upon him, no matter how illy he might be paid for his services. He was a good and learned physician, well grounded in the fundamental principles of our profession, aided by an unusually good judgment, and the habit of carefully studying and watching his cases. He always seemed to be careful of the feelings of others, never knowingly usurping the right and privilege of his brethren, preferring rather to be wronged than wrong. His code of ethics was: "Whatever ye would that men should do unto you, do ye even so unto them."

Dr. W. W. Dawson said: We come to-day to honor the memory of a very remarkable man: one who has died without leaving an enemy. Nay more, he probably never had an enemy. Dr. Bonner died without a stain on his name. He was particularly distinguished by his charity. Such a life is a psalm of praise.

Dr. J. C. McMechan followed, saying: A good and honest man is dead, and one more member of our profession has left us. never to return. My acquaintance with Dr. Bonner dates back some fifteen years or more; but I knew him by reputation from my earliest boyhood days. When I first came to Cincinnati I called on Dr. Bonner, and I shall never forget the kindness with which he received me. There was such a frankness in his manner, such sincerity and truth in what he said, that one regarded him as a superior being. What was most remarkable and most praiseworthy in this man was the simplicity yet grace and dignity of his bearing. He was always the same person. Whether at the bedside of a patient suffering with some terrible malady, or in the society of friends, he wore the same kind smile. He was a great physician, as he always inspired hope in his patient; and Coleridge says "he is the greatest physician who inspires the most hope." Nothing seemed to ruffle the serenity of his temper, and the grand object of his existence seemed to be to do as much good in this world as possible, and to do it in a quiet manner.

Dr. William B. Davis remembered Dr. Bonner since his early boyhood, when he impressed him as a typical medical man. His after intimacy only confirmed the impressions first made. "When with him," he added, "I always felt in the presence of a true Christian gentleman."

Dr. M. B. Wright delivered the following tribute to the character of the deceased.

"Last evening, while resting from the fatigues of the day, I received the visit of a medical friend, who said, 'Well, our friend Dr. Bonner is gone.' It was a feeling repetition of what I had heard during the day. Although too much indisposed to portray in fitting language the character of the deceased, my early friendship came back so warmly to my heart I was irresistibly led to note some of my recollections.

"More than thirty years ago I received the cordial greetings of Dr. Bonner, and the grasp of a hand that bespoke the sincerity of professional and social recognition. From that time on, during a long period, I had repeated and abundant opportunities of testing

and knowing his professional worth. He was eminently a practical man, indulging in theory only as a pastime, and not a platform upon which to hazard life. He was firm but not dogmatical in his opinions, even when sustained by the results of experience. A cautious and safe practitioner, he deprecated fearful risks. He was courteous in council and delicate in the expression of opposite opinions. A desire to shield a brother from unmerited reproach was, with him, a virtue. No one ever heard him utter the equivocal expression, "I ought to have been called earlier." To the young men of the profession he was affable and communicative, and to the older an agreeable and fondly cherished companion.

"Among medical, as among other men, are to be found traits of character widely opposite. While one is ever ready to exercise a spirit of forbearance, another is impelled by a spirit of fiery zeal. Dr. Bonner possessed much of the former, and I found him on several occasions an efficient aid in settling professional disputes. And when he himself was involved in trouble he was always willing to receive and be influenced by friendly advice.

"No physician in this city ever endured more heat and cold, sunshine and storm, weariness by day and wakefulness by night, without a murmur, than did Dr. Bonner. And no man among us ever performed more unrequited service. To sum up all in a fitting sentence—a good man has gone to his rest."

At the conclusion of Dr. Wright's remarks, the resolutions reported by the committee were adopted, after which the meeting adjourned.

ACTION OF THE MEDICAL PROFESSION IN REGARD TO THE DEATH OF DR. UNZICKER.

A meeting of the members of the medical profession was held April 20, in the hall of the Academy of Medicine, to take proper action upon the death of Dr. J. S. Unzicker.

Upon motion of Dr. W. H. Mussey, Dr. Benjamin F. Lawson was called to the chair, and Dr. C. P. Judkins chosen Secretary.

A committee of six was appointed to draft appropriate resolutions. It consisted of Drs. Bartholow, Quinn, Mussey, White, Muscroft and Brown. They reported a preamble and resolutions, which were adopted as follows:

The members of the medical profession of Cincinnati here assembled, have met to honor the memory of their late colleague, Dr. J. S. Unzicker, and to express their sense of the great loss which they have sustained in his death.

As a citizen, physician, friend, and parent, our colleague discharged all of his duties with the utmost fidelity.

As a citizen, Dr. Unzicker was keenly alive to all public interests, and always exerted his influence on the side of social order, and for the mental and moral improvement of society.

As a physician, he was pains-taking, honest, and skillful, mindful of his own self-respect under all circumstances, but full of charity and consideration for his patients. He was earnest and diligent in study, and laborious and faithful in bringing the results of his study and experience before the societies of which he was always a most attentive member.

As a friend, Dr. Unzicker was invariably loyal, just even to his enemies, and he had a ready and generous appreciation of what was good in all men, while he had a hearty detestation of sham.

As a parent, those who had the privilege of seeing something of his domestic life know how kind and considerate he was in all the relations of husband and father.

So good and true a man deserves our highest admiration, and should be held in tender remembrance.

As an evidence of our respect for his memory.

Resolved, That we attend the funeral in a body.

Resolved, That the resolutions and minutes of this meeting be published and communicated by the Secretary to the family of the deceased.

Addresses were made by Dr. B. F. Bruckner, Dr. J. L. Vattier, Dr. Bartholow; Dr. White, the chairman of the meeting, and others, who bore united testimony to the learning, honesty, and kindly feeling of the venerable physician.

Within the past month the medical profession of Cincinnati has been called to mourn the death of two of her oldest and most respected members. In most respects they were men of similar traits of character, of either it could be truly said, he was a good and true man, faithful in his labors for the good of humanity, and was the soul of honor and uprightness. They were men with whom it was a pleasure to be associated. Their memories will ever be regarded with fondness, respect and reverence, by those who enjoyed the privilege of their acquaintance and friendship.

Within the past few years Dr. Unzicker has been a frequent contributor to the pages of the LANCET AND OBSERVER. Paying special attention to the introduction of new remedies. His statements in regard to their action and properties were received with the most implicit confidence by the whole profession.

Drs. Bonner and Unzicker were skillful and beloved physicians, exemplary citizens, kind and indulgent parents, true and pure men.

Both were remarkably unobtrusive and modest, yet faithful in all their relations in life. Both were full of years and had labored arduously in their profession. We mourn their loss.

Died at San José, California, Feb. 16th, 1876, in the 57th year of his age, Dr. Augustine Byrne Caldwell.

The deceased was a native of Princeton, Kentucky, and was graduated at the Transylvania College of Medicine, in the year 1841.

He soon after married Miss Mary H. Combs, a daughter of Dr. Ennis Combs, of Montgomery, Ky, and with his family removed to Mechanicsburgh, Illinois. Two years after he moved to Independence Mo. where he remained until the stirring events of 1849 turned his attention to the new Empire of the Pacific coast, and with the tide of adventurous spirits then setting across the continent, he came to California. He became a resident of this county, Santa Clara in 1853, and has since occupied a prominent position in his profession.

Dr. Caldwell was a physician of marked ability. He was keenly perceptive, scholarly, and his judgment sound, and at the bedside he was "a calm intelligence," that at once inspired confidence and hope. He was extremely modest in the expression of opinions, and correspondingly deferential to those of others. He was kind-hearted, gentle, and generous to a fault, and few will have gained a larger credit for practical benevolence in that court above than he; and none whose demise has elicited more wide-spread sorrow and regret.

W. S. T.

IN MEMORIAM.

A TRIBUTE FROM THE FACULTY OF THE COLUMBUS MEDICAL COLLEGE TO DR. ISAAC W. RUSSELL OF MT. VERMON, O.

COLUMBUS OHIO, APRIL 14th, 1876.

At a meeting of the Faculty of the Columbus Medical College held this day, the following Preamble and Resolutions were unanimously adopted:

Whereas, We, the Faculty of the Columbus Medical College, have heard with profound regret of the death of Isaac W. Russell, M. D. Adjunct Professor of Surgery in our College; therefore be it

Resolved, That in the death of our colleague we have lost a friend deeply endeared to us by his worth as a man, his high attainments as a physician and surgeon, and his zeal and enthusiasm as a teacher.

Resolved, That, while reverently bowing to the will of God, we greatly deplore his loss to the profession, to humanity, and to ourselves.

Resolved, That we tender the expression of our sympathy and condolence to his aged father and his family, in this hour of our bereavement.

Resolved, That we attend the funeral of our colleague by a committee.

Resolved, That a copy of these proceedings be sent to the family of the deceased, and also published in the CINCINNATI LANCET AND OBSERVER

D. N. KINSMAN, Dean.

J. F. BALDWIN, Sec'y.

THE CINCINNATI
LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.
T. M. STEVENS, M. D., Ass't. Editor.

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Original Communications.

Art. 1—Fracture of the Femur.

By F. W. ENTRIKIN, M. D., Findlay, Ohio.

Read before the North-Western Ohio Medical Association, at Fostoria,
Ohio, May 26th, 1876.

Much has been written and more said about the possibility of treating fractures of the femur without shortening. Respectable authorities are arrayed on both sides of the question. It appears to me that one very important element in the treatment of oblique fractures of the long bones has been entirely neglected, which is absolutely essential to perfect results, namely, the use of extension to a sufficient degree, to secure increased length of the injured limb. Thus providing for the inevitable shortening, incidental to the action of the muscles and use of the limb, before the provisional callous has become perfectly ossified. A process that is slowly accomplished, especially in imperfectly nourished subjects, or in those whose bones lack the normal amount of calcareous matter, from some predisposition, as to the scrofulous diathesis.

I have, for fifteen years, been convinced that in oblique and comminuted fractures of the femur, it is possible to secure

perfect results by extending the limb from half an inch to one inch longer than normal, and keeping up extension and counter-extension until the provisional callous is quite hard. I believe that all the cases reported of limbs secured of proper length, after such fractures, would have measured longer than normal, if carefully examined while under the influence of the opposing forces. The usual shortening, in such cases, when adjusted of equal length with the sound limb, would appear to be an inevitable consequence of the tendency of the fragments to creep upon each other under the pressure of use, and the traction of the muscles. It is admitted by all that the imperfectly adjusted fracture is furnished with a large amount of material for provisional callous, and, also, that this material is, in all cases, at first soft and plastic. Ossific matter is slowly deposited at many points through it, until, at last, such structure becomes perfect bone, so far as density is concerned.

I am quite sure I have seen two cases of comminuted fracture of the femur, and several oblique fractures of the same bone, that were too long when the extending force was removed. One of the oblique cases was half an inch too long at the end of two months, at the end of two years no appreciable increase of length existed. I shall refer to the comminuted cases again before closing this paper. I know some will say it is impossible to extend muscles beyond their normal length without destroying the tone of their fibers. To this I would answer, that Flint in his physiology says, muscular fiber can be extended beyond its normal limits with safety. I know I have extended several limbs to at least one inch beyond their normal length, while under the influence of chloroform, and seen others gradually lengthened beyond normal by from eight to fifteen pounds on a pulley, the body being prevented from slipping down in bed by the perineal band or adhesive strap dressing. It will be observed that the maximum weight named is below that recommended by Hamilton in his surgery; less will sometimes suffice. My notes show some cases which measured from one-fourth to half an inch too long, when union appeared perfect, in which the dressings were removed, and limbs gradually put to use. The muscles rapidly regained their tone, and the cures were regarded as excellent by the patients, but careful measurement, six months to one year after, showed a shortening of one-fourth to one-half an inch. Such cases prove, that one reason for bad results is the premature removal of extensions, a difficulty that may be overcome by applying the plaster case to maintain the increase of length as soon as the hardening of

the new plasma has made some progress. I have never trusted to the plaster from the first, on account of the difficulty of securing correct measurement, and proper inspection of the parts; so essential during the early management, especially of compound and comminuted fractures. And on account of the difficulty of changing the amount of extension so as to secure the length desired in the particular case. If it is true that the soft, yielding provisional callous, will contract slowly but surely under the action of muscles, and use of the limb, so as gradually to remove increased length; yielding upon the same principle that teeth widely separated are made to approach, by the traction of elastic bands. Then we can explain, upon philosophical principles, how an oblique or comminuted fracture of the femur when the bone is carefully adjusted of equal length with its fellow, unless so maintained for an unwarrantable time, will almost certainly be too short before the provisional callous has become so hard as to be unyielding. It is equally apparent that the imperfect adjustment incidental to increased length, will secure a large provisional callous. And that when maintained under the influence of extension, until the new material has hardened to the density required for a case, and adjusted with perfect co-aptation. Then the shortening incidental to the period following the removal of the dressings will remove the increased length and be more likely to secure a perfect result. Following this line of thought it is plain, why we have more shortening in some cases than in others, under the same kind of treatment. The result depending upon the tendency of the case to furnish material for the perfect ossification of the new plasma, and the rapidity with which the muscles regain the tone lost by extension. This will explain why an increased length of half an inch diminishes more rapidly in some subjects than in others. It will also be apparent how difficult it is to say even at the end of six weeks, after adjustment, what will be the status of a case at the end of six months to one year. It is certain that the tendency of a fractured limb to shorten, does not cease until the provisional callous has so hardened, that pressure no longer affects its physiological activities, causing yielding by absorption and possibly by condensation at the points of pressure. No doubt nature more rapidly hardens the callous when subject to pressure from use, as this would be in keeping with her usual conservative processes. Experience teaches that slow creeping of the fractured parts upon each other occurs, resulting in shortening, of accurately adjusted cases, in from three to six months, when the most care-

ful measurement failed to detect any, when the extending force was removed.

Pursuant to these thoughts permit me to make a few quotations from the report of the discussions upon fractures of the femur before the surgical section of the American Medical Association, at Detroit, in 1874, Dr. Gregory said, "new material in repair will contract, &c."

Dr. Quinby, of New Jersey, said: "He believed shortening might occur after union." Dr. Pierce of Illinois, said, "A source of error was that measurements were made too soon after the patient was up, although there was none at first, it came on, and increased during the first nine to twelve months." Prof. Sayre, said: "In long bones all that is necessary is to use extension and counter-extension in proper direction, until you secure accuracy of adjustment." Again, he said, "If you do not extend to the normal point it is not perfect, while if you come to the normal point, there is quiescence, after which do not extend, but secure fixation." Is it not plain that if Drs. Gregory, Quinby and Pierce, are correct as to after shortening, which we believe to be true, as it accords with general experience, that fractures adjusted at normal length, as suggested by Prof. Sayer, must almost inevitably shorten before the union is perfect. I believe that fixation in oblique and comminuted fractures, of the long bones, especially of the lower extremities, should be made at from one-fourth to one inch, beyond normal length, depending upon the age and condition of the case, for the reasons above suggested. I would not risk the treatment of oblique or comminuted fracture of the femur without a fracture bed, with valve in bed and mattress under nates, for securing easy attention to the evacuations, with weight and pulley for the extension and perineal band at first for counter-extension. After a few days when the muscles are relaxed and the limb well extended, I depend upon adhesive plaster upon the upper part of the thigh and hip, with webbing carried to the head of the bed. I have known the adhesive dressing to remain on six weeks, still adhering, and cause but little cutaneous irritation, much will depend upon the care with which they are applied. I have tried elevating the foot of the bed, for me it has not proved satisfactory. If the limb is well extended under the influence of chloroform, half an inch extra length may be secured, and which in very oblique or comminuted fractures may be increased to an inch in ten days if proper extension is secured. I have usually found from eight to fifteen pounds on a well regulated pulley sufficient to secure extension of the

thigh of an adult male; proportionately less for females and children. This should be continued varying the amount according to circumstances for from three to six weeks, when increased length of limb is secured, and provisional callous has become tolerably firm, the starch or plaster bandage may be put on and the patient be permitted to use crutches. Where but little increase of length is secured, should continue extension during the period that ossified matter is being deposited in the new plasma. Hoping to secure some increase of length by causing the extension to slightly over balance the action of the muscles, thus reversing the conditions under which shortening occurs.

If the provisional callous is light, nature may be excited to increased effort, by somewhat rude handling occasionally during the second to fourth week. On removing the dressings, if there is but slight increase of length, I should re-adjust the plaster case, and insist on the use of the crutches, entirely excluding the use of the limb for two or three weeks longer, thus hoping to prevent the rapid shortening incidental to early use.

The late Dr. Purkey, of Wayne County, Ohio, when practicing in this county some twelve years ago, asked my assistance in breaking over and re-adjusting the femur of a young man, which he said was three-fourths of an inch too long. As it was but four weeks since the adjustment, I insisted that it should be let alone, that if put to use as early as possible it would be all right.

The Doctor frequently assured me that it was the first case of the kind he had ever seen recover with a perfect cure. It is possible to have such cases so much increased in length, and so managed, as to remain too long. A case of this kind was presented to the class at Bellevue College, during the winter of 1875, by Prof. Frank Hamilton. A line before me from Prof. Hamilton says, with reference to this case:

"The limb united under extension made with weight and pulley, is half an inch longer than the sound limb. You will find the case reported in the fifth (last) edition of my writings on fractures and dislocations, on pages 435-6." I quote from his lines, as the last edition of his work I have not seen.

It has been urged that ununited fracture would be more likely to occur if the fragments of the broken bone, were in such imperfect co-aptation, as would be incidental to considerable increase of length. It must be apparent, however, that in oblique fracture, co-aptation will occur in portions of the fragments, if proper lateral pressure is made. In like man-

ner co-aptation will occur between portions of the fragments of a comminuted bone. We think it is apparent that the large provisional callous, likely to be supplied with such adjustment, will be less likely to allow the formation of a false joint than in a case with an equal amount of shortening.

Those who have examined the specimens in any extensive pathological museum know, that a strong bar of bone, often unites fractured portions quite widely separated. A specimen from a fowl, I have the pleasure of presenting to-day, in which you will observe that the fragments are considerably separated, and the shaft of the bone much shortened, yet a strong bar of bone bridges over the space and firmly unites the fractured extremities. Permit me to give a brief account of two cases of comminuted fracture of the femur. Mr. G., aged twenty-five, had his left limb caught between a gate post, and the hub of a heavy wagon, drawn by two horses running away at full speed. Two and one half inches of the femur, about the junction of the middle and lower third, was crushed into several fragments, and the soft parts fearfully contused. He was placed upon a fracture bed made with valve under nates. Chloroform given, a perineal band applied, and extension made, until we felt quite sure, from comparison with the sound limb, that we had considerable increase of length. Dressed the bed under the limb with oil cloth, and padded so as to lay the parts in a comfortable position, attached by gaiter and pulley, twelve pounds, and kept a towel wet with cold salt water on the injured parts. At the end of five days, limb was not painful unless disturbed, and the swelling was rapidly diminishing. We covered the upper part of the thigh and gluteal region with adhesive plaster, to supply counter extension, when the perineum should become abraded, which occurred in this case by the fourteenth day. Adhesive plaster was substituted for the gater, a roller applied to the entire limb; the fracture supported by splints of sole leather; the fragments which were quite moveable, being carefully adjusted. Before the permanent dressings were applied, and while the parts were under, the influence of the first employed counter extending and extending forces, careful measurement showed full half an inch increase of length; at this time about nine pounds was left upon the extending cord. About the twentieth day, he complained of his knee and ankle, when the weight was diminished to six pounds, the extension was kept up until December twenty-eighth, being forty-six days. When the dressings were removed, and the limb found quite strong with ample provisional callous, the joints of the knee and ankle

were painful when moved, and acted with difficulty, the limb was about one inch longer than its fellow. The measurements were carefully made by myself and also by Dr. W. L. Miller, at that time my partner. The gentleman is a graduate of Jefferson, and a man of extensive observation; no doubt he will answer any inquiry, with reference to this and the succeeding case, as he assisted in the treatment of both. On removing the dressings a starch case supported by paste-board was applied to the thigh, and the patient permitted to use crutches.

He was very uneasy about the quite apparent increased length, and on being assured that it would diminish under use, was disposed to be too free in the use of the limb. At the end of three weeks or sixty-seven days after the injury there was scant one-fourth inch excess of length, having decreased so rapidly, we insisted he should put no weight upon it for three weeks. A requirement to which he reluctantly consented, and we judge faithfully carried out, as he retained a slight increase of length at the end of that time. Careful measurement, last summer, failed to detect any difference in the length of his limbs. I will endeavor to be more brief in the report of the second case, Mr. T., aged twenty-four, was passing through a woods in a wagon, sitting with the right limb over the head of a barrel, when a heavy limb broken from a tree by a storm, crushed to small fragments five and one-half inches of the femur commencing just above the condyles at the knee. The soft parts were much contused, but no serious external laceration. Mr. T. was a muscular man in excellent health. We gave chloroform and made extension for some time to the extent of my ability, which you will judge was considerable, when I say that I had a foot rest and a muslin roller attached to the limb and thrown around my shoulders.

No measurement, except by comparison with the sound limb, was attempted at this time. Treated the case upon a fracture bed, with the same kind of extension and counter extension, used in the case above reported, but permanent dressings were applied at the first visit, we kept bandages wet with carbolyzed water, and placed upon the pulley at first about fourteen pounds, this was soon found to be too heavy, and was diminished at different times; but just to what extent, notes do not show and memory does not serve, only that six pounds was on the pulley for the last few days. This case was kept upon the fracture bed, and extension kept up, for forty-one days. When undressed and measured it was, strong one inch longer than the sound limb. The fragments maintained their position with tolerable accuracy; a very large amount of cartilagenous, plasma had been thrown out, but it was yet easily bent.

Patient was cheerful and in excellent general health, no trouble with knee or ankle joints in this case.

The sole leather splints were reapplied to support the comminuted portion, and the limb placed upon a double incline plane. This allowed the patient more latitude of movement and was quite sure to prevent much shortening. Upon this splint, the treatment was continued twenty-eight days, making a total of sixty-nine days, when the parts were quite firm and maintained three-fourths of an inch of the extra length. We then dressed with a heavy starch bandage, inlaid with paste-board, to the entire length of the limb, made stiff enough to maintain extension, this was worn about two weeks when it was cut open so it could be put off at night, but for some time was applied during the day. This limb, at the end of six months, was full one-fourth of an inch too long; at the end of eighteen months we still thought it slightly longer than its mate.

I measured this case about one year ago; nearly six years after it was under treatment; I could discover no difference in the length of the limbs. We have been unable to find reference in surgical literature, to efforts to avoid, the usual shortening by extending fractured bones beyond normal limits, though for the last two years we have lost no opportunity to enquire. Being thoroughly convinced of the truth of our position, we hope to induce others to investigate this method by which, in our opinion, it is possible to remove one of the reproaches of the surgical art.

Art. 2.—Empyema and Thoracentesis.

By B. W. HOLLIDAY M. D, Cleveland, O.

It has been my lot, as a young physician, to meet with two cases of suppurative pleuritis in private practice, the care of which has caused me to feel more than an ordinary interest in the subject of this paper. This interest arises from no pride in successful treatment, which seems to be the motive behind many contributions, but rather the reverse—chagrining failure!

And I think if it were more customary to publish our blunders as well as our triumphs in practice, it would be quite as well for the progress of our noble mission, however humiliating to the writer.

One year ago I lost my own child by death from Empyema, the history of which will cast a shadow over my professional as well as domestic life as long as I live. For I believe that an *early diagnosis* and an intelligent practice of *thoracentesis* might have saved him! The fact that four consulting physicians, of enviable reputation, must share this responsibility with me, makes the inference probable that this report may have many *unrecorded* parallels. We are too often heedless of the frequently *insidious character* of the disease, especially in childhood. We probably underestimate the frequency of pleuritis in young children, and the fact that *in the large majority of cases of pleuritic effusions in childhood, those effusions are, or soon become, purulent and demand prompt surgical interference.* (West.)

The warning of my first case put me on the alert in *diagnosing* the second case, now under my care, but I am confident that I hazarded the life of my patient and surely retarded his convalescence by *delaying thoracentesis*. I was untrue to my first convictions in the case, and afterward yielded too long to the advice to postpone the operation—advice given by much older and wiser heads than mine. Now, I mention these unfortunate cases, not for the purpose of casting reflections upon my counsel—far from it! They aided me kindly, and have my thanks for it. I write only in the spirit of *self-accusation*, and the conviction that many more in our profession have erred or may err in the same way. And my object is to put the *latter* on the “look-out.” Early diagnosis *is* within our reach if we work for it!

Successful treatment is largely dependent on that early diagnosis. As to what *the treatment* should be, there can be no further doubt. Statistics show the most flattering results from thoracentesis when *timely and rightly performed*.

A recent letter from Dr. Bowditch, who has done so much for this part of surgery, may be of interest here, and I will close with it, hoping that many will become more interested in this advancement of our art. While preparing an essay on the subject of Empyema, for our county society, I addressed a letter to Dr. B. requesting his answers to the following questions:

(1st.) About what per cent of recoveries have you thus far realized?

(2nd.) In the treatment by free incisions what is your favorite after-treatment, in the way of injections, and how much importance do you attach to it?

(3rd.) Do you advocate constant drainage or the daily insertion and removal of the tent?

(4th.) Is the open method of treatment (generally) preferable to repeated aspiration?

(5th.) What are your views in regard to predisposing causes of Empyema, as to strumous diathesis, etc.?

(6th.) What has been your experience in regard to the sequelæ of Empyema as regard Tuberculosis, Brights Disease and degenerative changes in the liver?

To the above questions I received the following kind response:

BOSTON, April 10, 1876.

DEAR DOCTOR.—It always gives me pleasure to aid a professional associate, and one especially like yourself, prepared to advocate thoracentesis by any and all legitimate means.

I will endeavor to keep as closely as I can to your questions.

First—What per cent of recoveries?

I am sorry that I can not answer exactly on this point, because many of my patients, I saw only in consultation, and many of them I lost sight of afterwards. But let me approximate, if possible, to a general answer to the question. I have up to this time operated (328) three hundred and twenty-eight times on (207) two hundred and seven persons. No one has died immediately or in consequence of the operation.

I see, however, that some of the European Journals, report deaths, after the operation. *I have never met with anything of the kind*, although one woman, under the care of another physician, and when ether was used (I never give it in such cases,) died very suddenly, as I believed, owing to ether being administered, while one lung was wholly compressed. Ether may be and has been sometimes administered safely. There is however always a danger in its use in such cases.

These cases of death after thoracentesis are becoming in Europe so common that one English Journal asks, whether we may not be compelled to go back to old ideas again, and *consider thoracentesis a very dangerous operation, and only to be performed as a last resource!*

Nothing could be more disastrous for our patients or really more foolish than for us to adopt this assertion as true.

The writer of the remarks shows an entire want of appreciation of the real simplicity of the operation, and of its innocuousness when performed with an exploring trochar and canula and *suction pump*; by "*aspiration*," in fact though not in name.

I can only explain this unhappy result in Europe, by the desire of the operator to do *too much*, and thus prolong the operation beyond the time proper for the patient.

They desire to get out all the fluid that can be drawn. Now my rule, which I believe is the only safe one, is to stop suction the moment the patient begins to suffer from *any uncomfortable* symptoms—stricture of the chest, severe harassing cough, etc. A mild cough I always like to hear, as it indicates expansion of the lung.

With this rule before me, I have often drawn less fluid than I hoped to get—nevertheless, as the safety of my patient, not my own wishes, was the end I had in view, I have always relied upon it—and as I have stated without any untoward result, such as has happened abroad.

This rule applies to all cases which I have hitherto seen whether I found serum, pus, bloody or foetid fluid in the pleural cavity. In regard to the percentage of death from empyema, as I hinted above, I cannot give it, and instead I present you with the following statement of my general recollections.

1st. Children with empyema are much more likely to recover than adults; nearly all of them recover.

2nd. Adults, with *recent* trouble, are in a more favorable condition than those in whom the disease has lasted for months.

When the disease is recent the lung expands rapidly and the patient begins to get well from the moment thoracentesis is performed. But when chronic it expands.

a slowly, but surely.

b perhaps only partly.

c or finally, not at all.

In the first contingency if the pleurisy be in a previously healthy person, and if the other lung be wholly pervious to air, the patient generally gets well.

At times, however, after repeated operations, phthisis is liable to set in. In such a case the repeating of the aspiration I deem a bad mode of proceeding. The better mode is this—If, after once or certainly twice operating with the exploring trochar, I find this constant tendency to the reaccumulation of pus, I advise that a free and permanent aperture should be made. This may be done in two ways.

1st. By a trochar and canula just large enough to admit the passage of a drainage tube. The apparatus may be described as follows :



A



B

A B represents the length of the longest and shortest of these canulas. I have them of various lengths, and I use them shorter and shorter until finally the shortest simply passes the ribs, when, of course, the cavity is supposed or known by auscultation to be almost wholly filled up.

These cuts are nearly twice as large as my trochar tubes.



The canula is made with a broad flange, upon which I sew a piece of sticking plaster with a piece of oiled silk over the back of it to prevent it being soaked and soiled by the pus, which will flow over it.

I plunge in the trochar and let the pus flow, regardless of the entrance of the air, the canula being held firmly to the thorax by the sticking plaster, to which the canula has been sewed before operating. In a few moments, however, I order either a plate of cotton wadding or a bunch of oakum, or a poultice, and allow the pus to flow as freely as it may, urging the patient to lie, if possible, so that the opening will be in the most depending part.

This operation was done recently on a child with the best results. She has recovered so far as the pleurisy is concerned, but the case being chronic, before the operation was done I fear tuberculosis may eventually set in.

2nd The other operation for a permanent operation, which I have advocated, is a free incision of one or two inches between the ribs. This of course is a much more painful operation, but I am inclined to think the better of the two.

The essential object, however, that we wish to attain, is a permanent and free discharge of pus.

But let me here enter a "*caveat*." I have seen a permanent opening made by another which I disapproved of. The patient had had pleurisy for which repeated thoracentesis, with an exploring trochar, had been made with great relief, at times lasting for months. But the patient had also, evidently phthisis, marked by disease of both lungs, crackling under both clavicles, &c. Certainly it would seem a priori, that in such a case a permanent opening could do no good, and must be a real annoyance by its unpleasant discharge.

I do not now, therefore, advise a permanent opening in such cases for evil has always been the result in my experience.

In regard to subsequent treatment by injection I would say that when "*laudable pus*" is thrown out, and the lung is gradually expanding; if the patient be improving, I do nothing. Why should we? I can see no valid reason for interfering. I think some patients have been made much worse (in Berlin for example) by over-doing in this way of "*washing out the cavity*."

But suppose the patient fails and has hectic fever, &c, I then try injections of warm water and at times they are all that is needed and produce the most happy results. I find they have

done better in my practice than any more stimulating treatment. I think, now-a-days, Carbolic Acid might be used with advantage, but I have not used any.

3rd. Constant drainage is my rule.

4th. Is the open method preferable to repeated thoracentesis?

Whilst serum is drawn I always hope for the best, and repeat thoracentesis by aspiration. If pus—I have answered above.

If bloody serum—I *never* make a permanent opening because a bloody serum even once drawn, at a first operation indicates in my experience always an incurable and usually malignant disease of the pleura or lung.

Of course, in this last contingency a permanent opening would seem to be contraindicated.

5th. "Causes." Undoubtedly empyema may occur in a person previously healthy, and especially is this true of young children. But I often find a bad constitution at the bottom of the matter and of course this makes the progress less favorable.

Of the three sequelæ named by you, Tuberculosis is the only one I have seen. Never have Brights' disease, or enlarged liver been noticed, although they may have existed. Enlargement of the heart and sudden death with cardiac signs, after months of trouble, I have seen in a few cases in which though the fluid apparently did not reaccumulate, the lung never regained its free expansion.

6th. I send by this mail a copy of my paper before the Academy. Hoping this will arrive in season for your paper, and wishing that your society were within a reasonable distance so that I might hear your views and perhaps express my own.

I remain, yours respectfully,

HENRY I. BOWDITCH.*

Art. 3.—Profuse Salivary Flow and Swelling of the Tongue, in Certain Diseases.

By WM. CARSON, M. D., Cincinnati, O.

Read before the Cincinnati Medical Society, April 25, 1876.

The consideration of this subject has been prompted by the sudden appearance of these symptoms, in a case which we saw in connection with Dr. Kearns, of Covington, Ky. We do not propose to give the case in any detail, believing that

* In the July number of American Medical Journal, 1873, may be found a valuable paper, by the same writer, on the subject of Thoracentesis.

to be unnecessary for our purposes. The subject was a woman, aged 50 years, with a previous history of cardiac trouble, manifesting itself in various attacks of dyspnœa, palpitations and irregularity. These attacks would appear at intervals of considerable length. The one previous to her fatal illness, had appeared after a longer interval than usual, and found her in probably a better condition than usual.

It began with symptoms such as she had become accustomed to in her other attacks and to which she for some days paid little attention. These were, dyspnœa, oppression and some feebleness, but the Doctor soon found that there was added a pneumonia, with its general symptoms and physical signs, fairly revealed. Shortly after this, serious symptoms of cerebral origin were manifest. There were delirious expressions and actions, occasional drowsy periods, from which she could be aroused, to give correct answers to questions, asked for the purpose of testing her intellectual condition. At the time of progress of the meningeal symptoms, there was found an inverse course of the pneumonia. It was decidedly improving, so that it might be said that at the full establishment of the serious brain symptoms, the pneumonia was no longer a matter of much concern. An examination also revealed the presence of a large amount of albumen in the urine. So that we had altogether a group of very serious and interesting phenomena. First in the pathological history of the individual, cardiac trouble, then pneumonia involving one lung, then meningitis, and then a recognition of albuminuria. We do not propose to trace out the interesting sequences involved in these conditions. The cardiac troubles and the albuminuria were probably old in the association, and pneumonia and meningitis undoubtedly of recent development. After the pneumonia had almost subsided and while the meningeal symptoms were in full course, the following symptoms were observed by Dr. Kearns, between the hours of 9 o'clock A. M. and 12 M. Her pulse was feeble and frequent, and somewhat irregular; her tongue dry and small, and somewhat smooth, and protruded, on demand, very sluggishly and only partially. There was about the amount of indifference and mental torpor, with periods of delirious talking that had existed for several days. Before the hour of 12 M., or in the period intervening between the first morning visit and 12 M., the following changes had occurred; the tongue had become moist, and large and swollen, so as to fill the space entirely between the teeth, which before was so only to a small extent; one-half of the tongue was more swollen than the other, and an enormous out-flow of apparently

salivary and viscid fluid had taken place, without coughing or vomiting. In other respects there was no change, certainly no improvement. This full and swollen condition of the tongue persisted to a certain extent until the patient died. No mercurials had been taken. The swelling and the congestion of the tongue and the salivary flow formed a very striking episode in the case, and we desire to consider them in the light of their pathological physiology.

It is very evident that the tongue and the salivary glands were the parts particularly concerned in these manifestations. It is also highly probable that there was a common link of connection somewhere in the nervous or vascular supplies of these parts and that through this medium, the morbid causes acted to bring about the peculiar symptoms.

We need only refer to the blood supply of the tongue and submaxillary and parotid glands, very little difficulty is experienced in making out the anatomy and physiology of the vascular supplies of the tongue and glands. A more complicated state of affairs exists in regard to the nerves of these organs and their functions. There are three nerves going to the tongue in each half, the lingual branch of the fifth pair going to the papillæ, at the fore part and sides of the tongue, the the lingual branch of the glosso-pharyngeal, to the mucous membrane at the base and side of the tongue and to the papillæ circumvallatæ and the hypoglossal nerve, the motor nerve of the tongue. It is necessary to include in our study something more than these main nerves, in order to explain these symptoms. There is a small branch, around which has centered much anatomical, but particularly physiological work, the chorda tympani. It is a branch of the facial "enters the tympanum at the base of the pyramid, and arches forward across its cavity, between the handle of the malleus and long process of the incus, to an opening into the glaserian fissure. It descends between the two pterygoid muscles and meets the lingual branch of the fifth pair."—Gray. "A part of the chorda tympani accompanies the lingual nerve into the tongue; another part abandons the lingual nerve, a little above the inferior border of the inferior maxillary bone and forms a nervous filament, which passes from before backwards, by a sort of recurrent track to the submaxillary gland."—Vulpian* "As belonging to the same class of nerves and indeed, as Vulpian maintains, these two twigs are the only unequivocal members of the vaso-dilating class of nerves," we may mention the glosso-pharyngeal nerve; its lingual branches are two, "one

* *Lessons sur l'Appareil Vaso Motem.* Vol. p. 148.

supplies the mucous membrane covering the surface of the base of the tongue, the other perforates its substance, and supplies the mucous membrane and papillæ of the side of the organ."—Gray. In reference to the innervation of the submaxillary gland, "it receives two orders of nerves; some come from the superior cervical ganglion, and from the cervical cord of the great sympathetic; others are filaments furnished by the chorda tympani,"—Vulpian.* Vulpian, from our point of view, gives the best account of the physiology of these nerves.†

Ludwig had shown that section of the lingual nerve, above the point where were detached the filaments, destined to the submaxillary gland, arrested the secretion of this gland. Czermak, besides that, had noticed the influence of the great sympathetic upon the gland. Cl. Bernard proved that it was to "the anastamotic filaments furnished to the lingual by the chorda tympani, that is due the action of the lingual or of the glandular filaments which spring from this nerve."

* If a canula is introduced into the canal of Wharton on one side, a very small quantity of saliva flows from the canula. If the lingual nerve of the same side is divided above the point, where the nervous filament to the submaxillary gland, is detached, and if the peripheric end of the nerve and the glandular nervous filament which comes from it, be electrized, numerous drops of saliva escape nearly immediately from the canula—the circulation becomes much more active and if the surface of the organ be examined with a lens, vessels, which before were not visible, appear. The principal venous trunk, which returns the blood from the gland, becomes dilated and swells, soon the color of the blood changes from a dark color to a clearer and redder one; rhythmic beats appear isochronous with those of the artery. If the vein had been divided before the electrization, the blood flowed slowly—when electrization was practiced the blood flow quickly increases, and at the end of a few moments the blood escapes by jets, as from an artery. There is evident dilatation of the arteries, determined by irritation of the nervous fibres of the chorda tympani. When the electrization ceases the salivary flow soon stops and the circulation of the gland resumes its normal characters. The electrization of the sympathetic filaments destined to the maxillary gland, provokes a very slow issue of some drops of thick and viscid saliva; then the excretion stops as long as the irritation of the nervous filaments continues. The blood of the veins becomes blacker and the cir-

* Loc cit, p. 148.

† Page 159.

culatation becomes notably slower; the capillary hemorrhages at the surface of the organ, produced by irritation of the *chorda tympani*, the flow of blood, from the opening of the principal vein, can be arrested completely under the influence of the electrization.

To prove also that it was electrization of the *chorda tympani* and not of the lingual, which produced these results, he divided the *chorda tympani* within the ear, and he has then been able to provoke a congestion quite the same, as when he acted upon the lingual united with the *chorda tympani*. Another proof of the same conclusion, he arrived at by dividing the *chorda tympani* at the same place, and waiting two weeks, until the *chorda tympani* had time to become atrophied. Then, electrization of the peripheric end of the divided lingual failed to produce the same phenomena as when the *chorda tympani* was intact.

These facts form the principle basis for the belief in the existence of acting vaso dilator nerves. Others of similar import are given by Vulpian in regard to the glosso-pharyngeal nerve.* When this nerve is electrized after division, "a redness quite similar (to that on excitement of *chorda tympani*) and at least as intense appears in the posterior third of this organ, with the dog. This redness is then more marked on the superior than on the latero-inferior face of the tongue." "The glosso-pharyngeal nerve contains then also vaso-dilating fibers with directly centrifugal action, and the excitation of these fibers produces the dilatation of the superficial vessels of the tongue whereon this nerve is distributed." "The vaso-dilating fibers of the glosso-pharyngeal nerve do not come from the facial nerve." It would seem then that the principal medium, by which this association of congestion or tumefaction of the tongue and profuse salivary flow is produced, is the *chorda tympani* nerve, with some added effect from the vaso-dilating fibers of the glosso-pharyngeal, and anatomical fact of interest in this connection, is that the middle meningeal artery is surrounded by sympathetic filements that connect with the *chorda tympani*.†

Going farther back to the central origin of certain nerves, others still may be mentioned such as the association of increased salivary and urinary flow, on puncture of the floor of the fourth ventricle. "If the puncture is made immediately below the auditory nerve, the urine is secreted in great abundance—polyuria—when the puncture is made about the neighborhood of the nucleus of the facial, at quite the upper part

*Vol. 2, page 463, &c., Loc cit.

†Bernard Lecons, vol. 2, page 146, &c.

of the bulb, and at the inferior border of the pons, there is provoked an abundant salivation. When a puncture is made a little behind the origin of the fifth pair, there appears an abundant secretion of saliva. Often by one puncture only, all the salivary glands become excessively active. It acts also upon the kidneys.* This association is not one, as we shall see, of experimental pathology only, but is sometimes reproduced in the cases of disease we meet.

The facts are of great physiological importance, as proving the existence of active vascular dilatation, under stimulation of a few nerves; but they have besides, their clinical aspect. They are applicable to the solution of the symptoms in our case. The experimental data affords a strong support to the supposition, that the meningeal irritation in our patient, comprehended such an area, as to involve the larger and smaller nerves of the tongue and submaxillary glands in their intracranial sites that probably the excitation was direct and not reflected. We may not be able to explain why there are rare symptoms in these cases; or how morbid action differentiates the phenomena presented to us.

Cases of profuse salivary flow and swelling of the tongue, of nervous origin are mentioned in clinical medicine. Nottat reports two cases of congestion of tongue in neuralgia of inferior maxillary. In one, at each paroxysm, the tongue became so swollen that it protruded from the mouth from two to three inches. Vulpian interprets it thus: "The congestion had probably as its cause, the reflex irritation of the vaso-dilating fibres, that the chorda tympani furnishes the lingual nerve and which accompanies this nerve to the different regions to which it is sent."

Other instances of profuse salivation from directly irritating causes acting upon the central points about the floor of the fourth ventricle and the pons varolii, are those cases which occur among the insane and we believe more among the melancholia cases.

Physicians are occasionally consulted by persons of advanced age usually, with intense and persistent dryness at the back of the tongue or possibly including other parts of it. No doubt many, if not all such may be considered cases of imperfect action of these vaso-dilating nerves, probably from malnutrition on account of degenerated vessels. From such a point of view they indicate significant possibilities. Jabor-

* Poincare, *Physiologie du System Nerveux*. Vol. 1, page 273, vol. 2, page 32.

† Vulpian, *loc cit*, page 493.

andi in small doses, might be of temporary benefit in such cases.

By way of reflected action, it may be noted that hallopean,* in cases of bulbar paralysis, has seen two or three times exaggerated salivation to follow cauterization of the nape of the neck, a fact easily explained by the experimental results of irritation of the bulb or pons.

The cases of pregnant women with increased salivary flow belong to the class of irritations, reflected from the uterus, to the centers of origin of the nerves already described, in our brief mention of experimental results. This flow is brought about by vaso-dilating action of the nerves and not by paralysis of the sympathetic supply of the submaxillary gland. There is an absence of the other phenomena of sympathetic paralysis and excitation, direct or reflex action of the sympathetic would suspend the secretion of the glands and contract their vascular supply.

We have recently had under charge a case exhibiting the effects of disordered bulbar innervation. A woman, pregnant three months, during the whole period, had such an amount of nausea and vomiting as to seriously interfere with her proper nutrition. With that, there were a very profuse and annoying salivary flow, and polyuria, all or most of the phenomena included in the experimental pathology of the bulb. There was also a severe pain in the back.

Looking at the antagonizing actions of atropia and Jaborandi, and the effect of atropia on the action of the chorda tympani nerve†, as developed in the experiments of Kenchel and Heidenhain, and having some observation of the effect of atropia in the control of diabetes insipidus, we hoped to control these reflected symptoms in our case by bringing about the marked physiological effects of belladonna. We therefore prescribed suppositories of belladonna. By administering the remedy in this way, we expected to control the pain in back. In a few days there was marked relief in all the symptoms, less urinary and salivary flow and nausea. The patient was able to retain her food, and there was very little nausea, most of the time none at all. The occasional internal use of tincture of belladonna, is enough to secure suspension of the distressing symptoms.

At a meeting of the society, at which this paper was read, Dr. Comegys stated that he had found atropia very useful in controlling the nausea of pregnant women. Little or no mention of such use of that remedy is given in the systematic treatises.

*Paralysis Bulbarre, page 78.

†Kenchel. H. C. Wood's Therapeutics, page 211.

Art. 4.—Case of Puerperal Convulsions.

By F. H. GODFREY, M. D., Belle Flower, Ill.

April 16, 1876. Was called to see Mrs. R——, in labor with her first child. It being early in the morning, and not thinking that labor had actually commenced, I took my leave, promising to return towards night. I had just saddled my horse to return about three o'clock in the afternoon when a man dashed up saying Mrs. R—— was having fits, and would die if I did not hurry. I hurried and was at her side in half an hour. Found her in a half conscious state, and was told that she had had two convulsions. I immediately administered a dose of chloral hydrate and then instituted an examination, finding that the os was little if any dilated. In a short time another convulsion came on, alarming the friends greatly. I at once began the exhibition of chloroform cautiously, and brought her under the influence of that powerful agent. After recovering from said convulsion the os having dilated somewhat I began giving chloral hydrate and flu. ext. ergot in conjunction, about twenty grs. of chloral to a dram of ergot, at short intervals, using before the termination of the case about 500 grs. of chloral. Under this treatment the convulsions were checked and labor made some progress, I then ruptured the membranes, in the meantime I had Dr. Gardiner sent for, but as he was slow in coming, owing to bad roads and distance, after waiting as long as I felt justified in doing as she was threatened with a return of the convulsions, I proceeded to apply the forceps and delivered her of a living child at full term about one hour before the arrival of Dr. Gardiner. This was about seven in the evening. She at once fell into a gentle sleep which lasted about six hours. She made a good recovery, and at this date, May 20, is doing nicely, and has as fine a boy as desired, with no recollection of what happened. It may be questioned whether one man is justified in undertaking such an operation alone, but I looked upon it as my duty, although well aware that if any accident occurred, I would be held accountable. I have administered chloral and ergot together in other cases nearly similar and think a great deal of the combination, and am not aware that any one has put on record just such use of these medicines, I would like to know the opinion of others on the points viz., operating alone and the use of chloral and ergot together.

[Where assistance is not obtainable, as in this case, a physician is not only justified in operating alone, but should be held accountable if he did not use every means at his command that could possibly relieve his patient.

The above combination of remedies seem to have answered a good purpose in this case.—ED.]

Art. No. 5.—Lines to an Imported Cholera Germ.

Suggested by the reading of a late War Department Report.

From Bombay, in Hindostan,
A little germ you parted.
You smote the guts of the Turkestan,
You griped the bowels of the Persian,
At Ispahan and Teheran.
And then for Russia started.
You purged the folks on the Caspian sea,
And cramped the traders of Nijni.
From Odessa you made all speed,
In the baggage of Russ and Swede.
Entered the State of Minnesota,
Played h—l at Yankton, in Dakota.

Were you a bacterian, little germ from Hindostan?
If so, tell society, what's your variety?
Are you tri-loculare; lineola; tremulanc;
Or enchelys; punctum; subtilus;
Undula; tenue; volutans;
Prolifer; rugula; bacillus;
Or fulves; or the plicatilus?
Is the theory of your contagion
One of imagination?
Why did you not germinate,
And then exterminate,
All Minnesota,
All of Dakota?
Perhaps boards of health, expectant,
Stamped you out with disinfectant?
Rice water Germ please answer!
If you can, sir.

T. C. M.

Art. 6.—Uræmia.

A Paper read before the Alumni Association of the Miami Medical College, December 16, 1875. By F. H. ROWE, M. D., of Cincinnati, O.

The process of nutrition in the system for its perfect accomplishment, requires, among other necessary conditions, not only a certain amount of nervous influence, but a regular supply of pure, healthy blood, and in proportion as this deviates from the normal standard, either in the quality or quantity, so accordingly will there be morbid results, which may be either organic or functional in character. Impairment of the quality of the blood, may depend upon various causes originating either external to or from within the system. Leaving out of consideration the many sources from which the blood may be contaminated from without, we find that of the various intrinsic causes failure of certain glands to remove from the body those elements which, being of no further use, are in proportion to their nature, quantity and length of time which they are retained, productive of the milder or severer forms of Toxæmia.

Uræmia is that form of blood poisoning, which has for a cause the retention in the circulation of the material which it is the function of the kidneys to excrete, and is found in the course of various diseases as scarlatina, Bright's disease, the puerperal state, &c. By way of practical illustration, permit me to call your attention to a case, which came under my care, and which I think most clearly shows the serious results which may attend any interference with the elimination from the system of those products which are the natural constituents of the urine.

About 5 A. M., I was called to attend Mrs. B——, in confinement, with her second child, she was a robust, well nourished active young woman, aged about 26, with a history of no antecedent ailment—during her pregnancy she had been in excellent condition, both mentally and physically, escaping most, if not all of those harassing ills which so often complicate gestation, a moderate diarrhœa just previous to confinement, was regarded as but an indication of the approaching labor. This, together with headache, especially severe at times, were the only unpleasant symptoms in the case. Her labor, although protracted from the very early rupture of the membranes, was in every other respect natural and she was delivered of a healthy, well developed child, about 9 A. M., with everything in a favorable condition.

Her convalescence was tedious and unsatisfactory, being attended with pain and tenderness over the womb, especially marked at times, her abdomen was inordinately swollen and tympanitic, her pulse was accelerated, ranging from 100 to 120, her temperature was elevated, reaching as high as $103\frac{1}{2}^{\circ}$. Her lochial discharge was irregular; her bowels were rather constipated; her urine was passed regularly and freely, and her appetite was but moderately good.

The ordinary remedies, such as opium, quinine, turpentine stupes, in connection with beef tea and proper nourishment were used, and at the expiration of 12 days, I left her in what I considered good condition, she was able to set up during the day, her pain had entirely disappeared, her appetite was good, her pulse and temperature was about normal—with the understanding that she should be extremely cautious and avoid exposure, apparently all that she required was rest and quiet, and a little time to effect a complete recovery. At the expiration of ten days I was called again by her husband, who wished me to visit his wife, stating, that she was not so well and was again suffering pain. I scarcely recognized the patient, her appearance had entirely changed, her features were very much swollen, her eyelids were puffy, her hands and arms were œdematous, her countenance was dull and stupid, she stated that she had felt as well as could be desired up to the second day before I visited her, when she began to experience the unpleasant symptoms of which she then complained as a mild bronchitis, a very severe headache attended with dizziness. Constant nausea, with vomiting at times, diarrhœa moderately severe, which was serous in character, oppression about the chest, with difficulty in breathing, pain in the lumbar regions, difficulty of vision, stating that there appeared mist between her eye and the object looked at, drowsiness with constant disposition to sleep, dry skin, almost complete suppression of the urine, that which was obtained was of the color of porter, and by the usual tests became almost solid with albumen. This alarming condition had developed rapidly and she was constantly growing worse. To relieve her, and by way of treatment, I sought to produce vicarious elimination through the skin, that by the bowels having been already established by nature in her efforts to throw off the poison, and the patient was ordered to be placed in a steam bath extemporized for the purpose and a diaphoretic and slightly diuretic solution was prescribed, following this dry cups, warm fomentations were placed over the lumbar regions. Under this treatment she began, in a short time, to improve, profuse perspiration was

first produced, the kidneys began to act, and the urine became more abundant, the diarrhœa ceased, she became less drowsy, her breathing became more natural, her vision was improved, as also her appetite and strength, the œdema gradually disappeared. The only change in the treatment being comp. jalap powder and tinc. ferri. chlor. as indicated, when I discharged her, the urine was about normal in quantity, although still albuminous, and she seemed about well. I would add that the secretion of milk was not interfered with, the child although receiving all its nourishment from the mother, exhibited no signs of discomfort.

While the primary cause of uræmia is failure on the part of the kidneys to perform their eliminative function—to what particular ingredient of the urine the poisoning is due, is a question which has not been decided, although many theories have been advanced, each one founded upon some supposed valid proof or process of reasoning. The oldest and perhaps most generally accepted theory at the present time is that the poisoning is due to urea, which is a powerful irritant poison—although by some denied—and when it is found in excess in the circulation, it acts primarily upon the cerebro-spinal system, and through them interferes with the functions of organic life and producing sometimes structural changes in the system, although there are those who, rejecting this, assert that urea is not only perfectly innocuous but claim for it a useful diuretic property, and that when injected into the veins of animals it has no poisonous effect. This is now, by the best authorities, believed to be false, and the contrary has been conclusively demonstrated. There are those, and prominent among the rest, we find Frerichs, who, discarding the idea that urea is the active element, assert that the poisoning is due to its decomposition into carb. ammonia, and water due to some ferment in the body. But this explanation, although held for a time, is now no longer accepted. Again, we find those who ascribe the poisoning to retention in the blood of the results of nerve waste; by others it is referred to cerebral anæmia, and the attending cerebral œdema, by others, to oxalic acid in the system. Recent experiments have been made to prove that urea is formed in the kidneys as a result of effete nitrogenous material, and that the poisoning is due to retained creatine and creatinine, while some forms of uræmia have been associated with structural changes in the brain. Finally, there are those who, not being able to trace the symptoms to any one special constituent of the urine, have proposed the term *urine-æmia* as more expressive of the nature of this morbid condition—a term which has met with considerable favor.

In regard to the several symptoms met with, we find œdema due to the interference with the process of excretion—delirium, drowsiness, severe headache, vertigo, by some supposed to be due to œdema of the brain, by others to the effect of the poisoned circulation upon this organ. The disorders of the digestive system, are explained upon the principle of vicarious excretion. According to Freitz, urea is not changed in the vessels, but is excreted into the alimentary canal, then by the gastro-intestinal mucus, is changed into the carbonate of ammonia. This becomes absorbed, and is followed by nausea and vomiting. The amblyopia, which is oftentimes present, is referred to the effect upon the retina, due to the character of the circulation, and not to structural change, as to the urine it is albuminous, low sp. gravity, bloody, contains casts, and is generally scanty, but a normal quantity of urine is not incompatible with uræmia. As to the prognosis of uræmia, it is generally, if not always, a grave condition. It depends upon the severity of the symptoms and the length of time which the poisoning has been going on. About one-third of the fatal cases of Bright's disease terminate in this way. It stands in a causative relation to various serious inflammations, as pleuritis, pericarditis, as also, pneumonia.

As to the treatment, the indications here, as elsewhere, is to remove the cause if possible. A primary point is to hasten elimination through the skin and bowels. Diaphoresis is generally resorted to on the ground that the certain glands of the skin being anatomically similar to the malpighian corpuscles, excrete among other materials Urea. *purgatives* are used upon the same principle. Hydragogue cathartics as jalap, in the form of the comp. jalap powder, elataterium, scammony. In regard to the use of diuretics authorities differ. Some advocate their use, others protest against this class of remedies, the point in question being in regard to the stimulations of an inflamed part. Digitalis, although an active diuretic, accomplishes this without irritating the kidney, it also increases the power of the heart's action, and force of the capillary circulation; by this it also assists in diuresis. As to the treatment of uræmia convulsions, blood letting, formerly so much used, now meets with comparatively little support, and is mostly confined to those cases where we find marked plethora, cerebral congestion, suffusion of the eyes, full bounding pulse, and throbbing of the carotids. Prompt catharsis is indicated, and for that use the class mentioned before are demanded, Croton oil is often selected, with injections of turpentine, and cold applications to the head. Sinapisms to the nape of the

neck and extremities. In chloroform we have an agent whose effect is to control muscular spasm. It is, therefore, useful in those cases where we wish to diminish reflex sensibility, and overcome muscular spasm, as these, if continued any length of time, must terminate fatally. Hydrate of chloral is another remedy which has been much used, and strongly recommended for its narcotic and sedative effect. In opium, generally in the form of hypodermic injection of morphine, we have another means of arresting muscular spasm, by counteracting the effect of the uræmia poison on the nerve centers, and there are those who claim that for this reason it stands first in the list of remedies for uræmic eclampsia, by not only controlling muscular spasm, but that produces diaphoresis and facilitates the action of cathartics and diuretics, especially digitalis.

To conclude, each case is an individual one. There are a certain proportion which, being beyond the reach of any medical agency, are necessarily fatal, while there are some which, being amenable to treatment, require careful consideration in the selection of remedies, and the circumstances which surround them.

Art. 7.—Granular Ophthalmia.

A paper read before the Delaware County Medical Association. By
SILAS W. FOWLER, M. D., of Delaware, Ohio.

We will call attention to that form of trouble so exceedingly annoying, to the surgeon and patient affecting the eye-lids, known as granulated lids or granular ophthalmia. For the want of close examination, this granular condition of the lids, is overlooked in the early stages, and for want of observation and proper attention, in a short time, when the lids are inverted we find the conjunctival surface exceedingly rough. It is from this rough condition of the lids, continually sweeping over the conjunctival membrane of the globe of the eye, that we have this mucous secretion and their a muco-purulent discharge.

The two forms, which we will especially call attention to, are the true granular and vessicular; the true granular is generally caused by some persistent irritation or purulent ophthalmia.

When everting the lids, that bright high polish, and smooth glistening condition is partially or entirely gone, and instead small vascular enlargements, scattered in patches or entirely over the entire conjunctival surface. This may be seen when the pappilla of the conjunctival surface of the lid is hypertrophied. We may meet with it where the granulations are caused partially by an inflammatory exudation into the connective tissue, from some subsequent cicatricial change.

When the attention is called to these granulations in their primary stage, we find them small and exceedingly delicate, red and very vascular; and should they be touched, however carefully, or should the lid be turned up, which is more or less thickened, will bleed.

The peculiarly delicate changes these granular bodies pass through, we can but imperfectly explain, we will from frequent and minute examination, see them inflamed causing the eye to become suffused and the conjunctiva of the globe to become swollen and puffed up all around the cornea, the latter retaining its normal condition.

In a few days this inflammatory action passes away, or partially so, reappearing again in a short time.

After passing through these inflammatory stages a few times, there will be a peculiar gritty feeling as if there was some foreign body in the eye, let the trouble go on and become chronic and the tissues will become thickened and anæmic.

But from careful and repeated observations we will see there is more or less variety of appearance of these granulations, from the acute to the chronic stage, or according to the severity of the inflammation, which produces them and the stage they reach, as well as the treatment to which they have been subjected. Individual cases may and do vary to a large extent at one time or in one case, the palpebral conjunctiva is studded with small red villous looking granulations, varying in shape and size.

From the low grade of inflammation attending them we may have serous effusion into the conjunctival connective tissue, giving the palpebral conjunctiva the appearance of putrescible matter, the serous effusion becomes more permanent in severe cases, and thus more or less œdematous, the color varies from a bright red to a dark purplish hue. In this latter form we do not see the granulations until the reparative process takes place, because of the watery effusion. When this effusion has stopped and healthy action begins, the granulations will look pale, flabby, and scattering, and apparently connected by cicatricial tissue.

The vesicular form of granulations, we find scattered over the conjunctival surface of the upper or lower lids. The larger number appearing in the oculo-palpebral fold, on minute examination we find they slightly project from the surface as small round whitish bodies, resembling the delicate vesicular eruption of the skin. Soon after they make their appearance they seem to be filled with a semi-transparent fluid, when attempting to rupture one of these little bodies, with a sharp pointed instrument, what seemed to be a fluid, will be found to be a solid growth, firmly imbedded into the sub-conjunctival tissue and only removed with difficulty. But when rupturing the sack inclosing them they will shell out with little difficulty. We will meet with this trouble from youth to old age, but it occurs more frequently among those who neglect, to a large extent, sanitary rules and regulations. Such as the indigent of towns and cities, also persons living in ill ventilated apartments, poorly fed, and especially among soldiers exposed to the smoke and depressing influences of camp life, and laborers in factories, etc.

This form of trouble is contagious and may attack a whole family or neighborhood, thus great caution is necessary, to keep the linen used by the patient separate from other clothing.

These granulations may be on the conjunctival surface of the lid, for some time previous to giving rise to any irritation more than a slight pricking sensation, or a peculiar itching, at this time, we are called on to prescribe some wash and generally to the detriment of the case. After using the collyrium there seems to be a remarkable improvement and the case is dismissed as cured, but soon, to our surprise, the trouble again makes its appearance, and purulent discharge will collect on the cilia, and the ciliary margins of the lid forming a large and unsightly crust, and the lids will be gummed together in the morning from the morbid secretion of the disturbed meibomian glands; we will also have excessive lachrymation and a continued feeling of grittiness. The cornea will become hazy and dull sooner or later, and following this is liable to form a nebula and, to this nebula, we see one or more small arteries running, caused by the continued friction of the roughened lid. These reparative vessels act to relieve the irritated tissue and at the same time furnish material to build up the nebula. The trouble continually grows worse as exposure to the wind and light is increased; it is an impossibility to give a distinct set of symptoms, applicable to all cases, but there are certain symptoms always presenting themselves at some stage of the disease, such as the peculiar gritty feeling, the intense

heat in the eye, the excessive lachrymation, photophobia, the muco-purulent discharge, following the lachrymation, the glewing together of the lids, the unsightly appearance of the caruncle, and the tarsal borders of the lid from their red condition, and from the drooping sometimes of the lid, the vascular nebulous condition of the cornea, and from the continued friction, the peculiar ulceration of the cornea, the latter only differing slightly from the ulceration from cornitis, and great care should be taken to diagnose between them. In the acute form of granular ophthalmia, the lids become swollen and red, and spasmodically closed from the photophobia, and when attempting to open the eye, there will be excessive lachrymation, and following in a short time the muco-purulent discharge. When properly managed, these urgent symptoms will soon subside, but the old chronic irritability still remains. The frequent inquiry is often made, how long will it take to cure the trouble? From our own observation as to the time and certainty of establishing a cure, every case must show for itself. One case may require the most careful and continued treatment for one or two years, while the majority from six months to one year's treatment, will bring about a reparative process. Thus we can say to our patients, we can restore a healthy smooth condition of the conjunctiva, but much depends on the stage the disease has reached, as to the entire recovery and the restoration of the sight, as there may be mischief done by these granulations, which neither time or our remedial agents will eradicate.

The continued friction may have caused the conjunctiva to become changed, in appearance and structure, still the surface remaining smooth. Yet the constriction at different points will have a whitish glistening aspect, resembling cicatricial tissue. Lastly will speak of the treatment of *granular ophthalmia*.

In the beginning of the treatment our first object will be to reduce the inflammatory action, and next to restore the roughened surface, the original smoothness, or so much of it, as we can by entirely obliterating and destroying the granular bodies, but in destroying them great caution must be used, not to impare or to destroy the conjunctival tissue, and form a cicatrix.

Many agents have been recommended from time to time, to be used in obliterating these granular bodies, but those which have proved most useful and beneficial in our hands, we will only speak of; 1st. the application of the mitigated nitrate of silver in the solid form to each and every granulation. The patient being seated in a chair and the operator standing be-

hind with a silver probe, gently everts the lids, so fully as to expose the greater portion of the conjunctiva. As was said, gently apply the preparation to the granulations, after which use a solution of nitrate of silver, two grains to the ounce of water, to the whole surface, with a small camel hair brush, and especially to the oculo palpebral fold. After the application we should use a stream of cold water to wash off the surplus of the silver, if any should be left, as it is liable to set up a violent inflammation. The application may be repeated every two or three days, but it must be left to the judgment of the surgeon, when and how often it should be used.

During the interval an astringent wash should be used to bathe the eye, once in three or four hours, only letting two or three drops enter the eye each time. The astringent we generally use is alum, 2 grs.; sulph. zinc, $\frac{1}{2}$ gr.; sulph. of atropia, 2 grs.; to the ounce of water. An other remedial agent for the granulations is the *lapis divinus*, or nitrate of potash, and sulph. cupri, of each equal parts, and camphor one-fiftieth part of the whole, and fused.

With this preparation our experience has been most satisfactory. In using the lapis divinus we evert the lids the same as when using the mitigated nitrate of silver. Then drying the lids with a piece of linen, we touch freely each granulation. In all cases where there is acute inflammatory action it will be best to postpone the use of astringents, until the acute symptoms are gone. We also gain much by the use of the bandage and compress, in the acute stage, only removing them when bathing the eye with a lotion of belladonna and alum, or dilute tinc. of opium. Then as soon as the swelling has abated sufficiently to permit of the eversion of the lid, the above mentioned agents may be used as directed, still continuing the use of the lotion and bandage.

Translations.

Chronic Tubercular Peritonitis Manifesting Itself by the Single Symptom of "Intestinal Obstruction"—Difficulty in Diagnosis at the Beginning—Death after Three Months Without any Pulmonary Lesion.

At the session of the Anatomical Society (Paris, Seance Decembre 5), Dr. Liouville presented specimens taken from a patient deceased at the Hôtel Dieu.

The case was one of chronic tubercular peritonitis, the first apparent symptoms of which were an intestinal obstruction, so obstinate and intense as to seemingly render surgical interference necessary. After four days however the intestinal trouble yielded, the discharges took their natural route, the vomiting almost feculent ceased, the temperature raised somewhat, and things seemed to return to their normal condition, when all at once symptoms of peritonitis manifested themselves. Fifteen days afterward, there was again intestinal obstruction, and again so obstinate and intense as to seemingly render an operation necessary. Dr. Liouville determined to wait, however, having had occasion to observe in a case of this character, a case of tubercular peritonitis, that the operation caused a renewed acute attack. The symptoms of internal strangulation yielded to treatment only to be followed by the symptoms of peritoneal trouble.

The diagnosis was therefore probability of a subacute tubercular peritonitis, although both lungs appeared to be unaffected. The course of the disease only verified these apprehensions and the patient succumbed three months after.

Autopsy, No trace of tubercles, no other lesion in the lungs; the pleura only began to take on tubercular trouble by propagation (light tubercular pleurisy with miliary tubercular granulations, following the course of the lymphatics.)

The point of departure and seat of the greatest manifestation of disease, was the peritonium. The abdominal cavity presented all the lesions usually manifest in this disease; the caking of the intestines, the yellowish neo-membranes, the puriform fluid and the agglutination of portions of the bowel to each other and to the abdominal viscera.

The relationship of the organs was modified; pouches encysted new pathological products; and lastly, what was most remarkable, bands, some very friable, others very strong and capable of strangling partially or totally, a loop of intestine.

The microscope revealed the existence of tubercular granulations in both serous membranes, predominating, however, in the peritoneum.

Dr. Liouville endeavored to demonstrate more particularly by the pathological specimens placed before the members, the following four points: 1st. The beginning of tuberculisation by the sole lesions in the abdominal cavity; 2d. The absence of all traces of tubercle in the lung; 3d. Extension of the granulo-tubercular changes of the peritoneum and of the pleura; 4th. Lastly, M. L. calls attention to this practical point, not to be in a hurry to operate in like cases, though

the urgency of the symptoms and the obstinacy of the obstruction seem to demand it. The operation, under these conditions, although, without doubt, obviating grave accidents, hastens death, which by proper medical treatment can be retarded for months, even years, as already demonstrated by Prof. Grisolles.

Dr. Liouville further remarked (in response), that there was actually a lowering of the temperature and that the phenomena progressed very rapidly.—[*Progr. Medical.*]

Narceine.

For the purpose of assuaging the attacks in whooping cough, we have one remedy, a very good one, that is narceine, administered either in pills of one centigramme (about 1-7 of a grain Tr.) or what is better for infants in syrup as according to the following formula:

R \bar{y} Narceine, 25 Centigrammes,
 Syr. Simpl. 500 Grammes.
 Acid Acetic gttā. q. q.
 M.

Each tablespoonful will represent one ctgr. of narceine; for very young children we can commence with half a tablespoonful, which will make the dose a demi-centigramme. Two and even three centigrammes can be given in 24 hours.

The attacks of cough coming on at night are almost certainly avoided by the aid of this simple remedy.—[*Dr. L. in Tribune Medical.*]

Ailanthus Glandulosus in Dysentery.

Dr. Bonchardut proposes the following potion, to be taken two or three times through the day.

R \bar{y} Infusion of Ailanthus, 15 to 20 grammes.
 (Chinese Sumach.)
 *Hydrolat. Flor. Aurantii, 10 grammes.
 Syrup Simpl. 20 grammes.
 M.

This infusion should be taken in chronic diarrhœa or dysentery for three or four days. As an injection 20 grammes of Ailanthus may be given.—[*Progr. Medic.*]

* Distilled Orange Flower Water.

Anti-Salivation Powder.—(*Panas*).

Ry. Pulv. Cinchon. Cort.,	15 grammes.
“ G. Catechu.,	15 “
“ Acidi Tannic,	2 “
Alum. et Potass. Sulphat.,	1 “
Ess. Menth. vel. Anis.,	g. s.
<i>M.</i>	

The gums are to be well rubbed with this powder several times a day, to prevent or diminish swelling of the gums, in patients using mercury—especially those making inunctions with the Neapolitan Ointment.—[*Annuaire de Thercep., Trib. Med.*

Atropine for Urticaria.

In a case of chronic urticaria in a young unmarried woman, against which all other remedies proved useless, Fraentzel employed with great success Atropia in doses of 6 milligrammes.

Ry. Atropia. Sulphat.,	0,006 (milligr.)
Argill,	q. s. ut. ft.

Pellul No. i.—Three such pills to be taken daily.—[*Berlin Klin. Wochen.*

Epithelioma of the Tongue and its Relation to Psoriasis of that Organ.

Report of a communication by DR. TRELAT, to the Chirurgical Society, Paris.

At its last session, December 8, 1875, the Chirurgical Society heard a very interesting communication from Dr. Trelat, concerning the relationship that seems to exist between Psoriasis of the tongue, and lingual epithelioma.

The number of observations presented by Mr. Trelat were three. The first, a well marked case of epithelioma, the appearance of which was preceded by a slight touch of psoriasis, so slight, indeed, that it was barely noticed by the patient, and hardly observed by the physician. It was impossible to arrest the disease, and the patient soon succumbed.

The second observation was a man in the prime of life, vigorous, habitually enjoying good health—a great smoker.

There developed on the upper surface of the tongue, a most characteristic caucroid, upon the precise spot, where since a long time there existed patches of psoriasis, known under the name of "smokers patches." A radical operation was made by means of the galvanic noose, and the microscopic examination of the removed tumor justified the diagnosis and the operation. It was composed of papillary epithelium and epidermic globes, which almost specially pertain to this class of tumors.

The third observation was a case of old and obstinate lingual psoriasis, from which, upon either side of the median line, there developed a thickening of the upper surface of the tongue, forming a tumor divided by a deep fissure (which corresponded to the median line) into two globes. This thickening did not present the appearance of an epithelial neoplasm; the functional and rational symptoms characteristic of this genre of growths were wanting. M. Trelat, enlightened by the two former cases, diagnosed a tumor of malignant character. Partial ablation of the tongue was proposed and agreed to by the patient, and performed by means of the galvanic noose. The results of the operation were most happy, and the patient acquired the same power in his tongue as when it was entire.

The tumor was examined by Dr. Cornin, who could not accurately determine its character. The diseased tissue is formed by the lingual mucous membrane, very much thickened and traversed by canals of no definite form, but filled with young epithelial cellules; he found neither epidemic globes nor hypertrophied and hyperplastic papillae. Nothing, in short, characteristic of epithelioma. The lesion had (very probably) not arrived at that degree of perfection for the microscope to accurately determine its character. The anatomical diagnosis must be made somewhat from the clinical history and ultimate progress of the malady; should there be a relapse, we will be able to say that the primitive tumor was an epithelioma—if no relapse, the problem remains unsolved.

In view of all considerations, (notwithstanding the reserve of the microscope) and judging from the subsequent happy results, M. Trelat thinks his course in this case perfectly justified, and congratulates himself on having disembarassed his patient of a future epithelioma; for he has no doubt that in a longer or shorter time the neoplasms would have developed themselves, with the whole cortege of symptoms that usually accompany them.

From these facts here presented shall we conclude that the psoriasis simply preceded the epithelioma, or rather that the

psoriasis brought on the epithelioma, transformed itself into an epithelioma? Certainly not—it would be dangerous to found a theory, on so small a number of facts; there is, however, a great possibility that the psoriasis was the “processus irritativus,” through which the epithelioma developed. Some years ago “irritation” was thought to enter into the etiology of a great many diseases. At present, irritation, as a possible cause of certain pathological conditions, is altogether rejected. This is a tendency that must be opposed, and for my part, says M. Trelat, I am an avowed and convinced partisan of the theories of Virchow. He, therefore, believes that in the cases cited the psoriasis should be considered as having determined the development of the epithelioma by the constant irritation of the mucous tissue of the tongue. * * *

This is a question of the greatest importance to surgeons, and deserves to be carefully studied. The particular observation of M. Trelat all enter into the category of facts, essentially belonging to general surgical pathology, the laws of which are unfortunately so little known. They have, nevertheless, great importance, for the diagnosis, prognosis, and treatment of many neoplastic and other accidents are subordinated to an exact knowledge of the influences that presided at the birth and evolution at the accidents.—[*Trib. Medicale*, December, 1875.]

Osteotomy Against Rachitic Deviations of the Limbs.

Report on a Memoir presented to the Chirurgy Society by M. BOECKEL and remarks upon the same.

One of the unfortunate results of rachitis is that sometimes the limbs of the children, attacked by this disease, are so deformed as to disable them for the future of gaining their own livelihood, and throwing them upon the charity of the world. It therefore behooves that surgeons should use their best endeavors to prevent such unfortunate results.

As rachitis usually appears in early childhood it is above all at this period that therapeutics have the best chances of success. Until now the curative means employed, have consisted of general hygienic care, the application of bandages and prosthetic appliances and the forcible straightening of rachitic curvatures.

To the measures above mentioned, M. L. Boeckel, of Strasbourg, in a memoir presented to the Chirurgical Society, pro-

poses to add *osteotomy*, an operation which has hitherto been only employed in osseous malformations resulting from badly healed fractures.

The author of the memoir indicates the course to be pursued by the surgeon called to remedy rachitic deviations. When a rachitic child is presented, he should at first simply keep it under strict observation for a number of weeks, from eight to fifteen, carefully noting during this interval, whether the disease diminishes, progresses, or remains stationary. If the first be the case, active surgical interference is useless; a good hygiene, tonics, a light bandage, or well applied apparatus and the malady will easily disappear. If the second be the case, it will be necessary, in addition to the means above mentioned, to forcibly straighten the crooked limbs. In the third case, however, that is, when in spite of time, bandages, apparatuses, and forcible straightening, the malady remains stationary, then it becomes necessary to act more energetically and *osteotomy* must be resorted to.

The *osteotomy* must be made after a certain method. Through a very small incision the bone is laid bare and then by means of *chisel and hammer* the bone is either so thinned as to yield easily to straightening, or a small wedge shaped piece of bone is removed, (the point belonging to the concavity of the limb). The limb is straightened and maintained in this position by proper apparatus until perfectly consolidated. The principle point to be observed is the employment of chisel and hammer to the exclusion of the saw. This is an important point for the success of the operation; for it is now clearly demonstrated that osseous sections made with the saw, are dangerous from the bone saw dust, each particle of which transformed into a foreign body, remains in the wound and by its presence alone gives rise to grave accidents of supperation. Another important point is that the incision into the skin be made just large enough for the cutting instrument to pass through—in a word to make a subcutaneous osteotomy.

M. Boeckel has himself performed this operation nine times and has had perfect success in *every case*. In all the analogous cases which he has been able to collect, there was perfect cure without any inflammatory complication. The number of cases collected is thirty-four—thus giving thirty-four successes. The author therefore concludes that an operation so useful and innocent par excellence should be adopted. * * *

The enthusiasm of M. Boeckel does not infect the members. *M. Lefort, Blot, and Depaul* maintained that rachitic deviations, of the lower limbs particularly, healed perfectly without

surgical interference, at that age, when Messrs. Boeckel and Billroth, perform osteotomy. In the immense majority of cases, a very slight apparatus will suffice to straighten limbs extremely deformed, and in young subjects even without such, the long bones frequently straighten spontaneously, under hygienic care, good alimentation and country life. That they believe the patients operated upon by M. Boeckel and others, would have been cured without an operation, and that the surgeons had been in great haste * * *

In support of this opinion M. Marjolin placed before the Society a very important table of statistics, compiled at his request by M. Perrochaud, physician at *Berck-sur-Mer*.—(a sea bath.) In the hospital, at this place, to which are sent all the rachitic children from the various hospitals, complete cure or very decided amelioration is the rule. There are but few individuals upon whom the maritime treatment has not had some effect; M. Perrochaud hardly knows one. We must, however, sometimes *wait a long time*, even after the cessation of treatment, before we see any sensible amelioration manifest itself. M. Marjolin, therefore, rejects the operation for children up to the age of 11 years—because rachitism heals very often, even after that age.

On the other side M. Panas thinks that the statistics of M. L. Boeckel ought to encourage surgeons to practice osteotomy in adult rachitic subjects, who have no further hope of seeing their limbs straightened by the simple efforts of nature or even by the aid of a prosthetic apparatus. We know that such individuals, arrived at a certain age, have until now been considered incurable. In these subjects it will perhaps be worth while to try the operation of osteotomy.

M. Verneuil likewise rejects the operation for young subjects as a useless one. * * * *

[*Trib. Medicale, Mars, 1876.*]

Proceedings of Societies.

The Society met March 14, 1876, Dr. Comegys presiding. Minutes read.

Dr. Murphy said that on Wednesday, the 8th inst., he was called to New street to see a patient who had been under the care of another physician for three days—the duration of his present illness.

He found a colored man, 28 years old, a house-servant; with a pulse 108; temperature $102\frac{1}{2}$; respiration 40 per minute. He was coughing some, and expectorating a rust-colored sputa. In consequence of having been out of work for over two months, with a family to support, and having had a severe broncho-pneumonia two years ago, he was very much depressed, mentally and physically. He was taken sick on Sunday morning, the 5th inst. He had felt chilly all the morning. At 3 o'clock P. M. it culminated in a chill, followed by fever, and pain in the left lung near the nipple.

On examination Dr. M. found over the left lung bronchial respiration, bronchophony, and dullness on percussion. The tongue was heavily coated. The stools of a natural color.

The diagnosis of pneumonia with pluritis was made.

Quinine, nourishing diet, and stimulants were given. The patient continued to grow worse, and being too weak to bear examination, Dr. M. was unable to give the physical symptoms after his first visit. The respiration increased in frequency; temperature not at any time above $102\frac{1}{2}$. On Sunday afternoon he died, after one week's illness. There was no expectoration after Thursday, and very little cough. No post-mortem.

This man had been in Dr. M's. employ as servant. Was at his house on New Year's day, when he had a bad color and said he had not felt well for several weeks. He was at that time much discouraged about getting work.

Dr. Mackenzie said that during the past week a case of the most speedy decomposition that he had ever seen came under his observation. He was called by one of the Dispensary clerks to see a patient who had phthisis. The tonics and stimulants which he had been taking were continued. The patient died on Sunday morning at 1 o'clock. On Sunday forenoon his son called on Dr. M. and asked him to make a post-mortem, as his father had requested that it be done. At 3 o'clock P. M., fourteen hours after death, Dr. M. called at the house, but the body was so much decomposed that no satisfactory examination could be made. The body was very emphysematous, the skin over the sternum being elevated fully one inch.

Dr. M. thought the speedy decomposition was due to the low condition of the system from the excessive use of liquors.

Dr. Comegys said he had just treated a case of pneumonia in the hospital with *veratrum viride*. The patient had a frequent pulse, rapid breathing, a temperature of $103\frac{1}{2}^{\circ}$, bronchial respiration, and was expectorating a white, tenacious (not rust-colored) sputa.

Six drops of *Tr. Verat. Viride* were given, to be followed with five drops every three hours. This was to be kept up until its constitutional effect was observed, when it was to be discontinued. Owing to neglect on the part of the nurse to observe the directions the medicine was continued all night, notwithstanding the patient had been vomiting nearly all night. The vomiting was promptly arrested by stimulants and sinapisms; the temperature had subsided

and there was a much better state of lung and resolution was established. The heart's action was reduced to 48 per minute. The veratrum was given to relieve hydrostatic pressure.

Dr. Murphy said a large number of cases of simple pneumonia get well if well nursed without any treatment. In the case reported by *Dr. Comegys* there was no pleritis. Where this is the case resolution is frequently established by the third day. In the case he (*Dr. M.*) had reported the pulse was dicrotic, flagging. It was not a case for arterial sedatives. Quinine was given to support the powers of the patient, and to subdue fever.

Dr. Carson said these cases show the absurdity of attempting to give an outline of the treatment of pneumonia, without considering the character of each case of the disease. In *Dr. Murphy's* case we have: 1. A serious pulmonary trouble occurring two years ago; this, especially in a negro, would be likely to leave some trace behind; 2. The bad morals of the man, his nervous condition being depressed for being out of employment; 3. His hygienic surroundings, which, judging from his condition and location, could not have been good. In such a case stimulants would be indicated from the start.

In regard to the case reported by *Dr. Mackenzie*, the amount of fever before death may have had something to do with the speedy decomposition.

Dr. Comegys said he would not think of giving veratrum viride except in a sthenic form of frank pneumonia. There is an inverse ratio between the capillary circulation and the action of the heart. He gave verat. viride to relieve the capillary circulation. It is well known that we can reduce the action of the heart with verat. viride. That reduction is due to the arrest of the changes taking place in the system.

In the bronchitis of children, the speaker thinks the action of tart. antimony is good. He gives it for its sudorific effect.

Dr. Carson—Why not give it to adults?

Dr. Comegys—I am not sure that it would not do good.

Dr. Taylor asked what *Dr. C.* meant by the term "children."

Dr. Comegys from six or seven years down.

Dr. Taylor said the bronchitis of infants is very different from the bronchitis of children six or seven years old.

Dr. Comegys—In cases where you have gone through with the ordinary treatment of bronchitis, and have blue lips, rapid respiration, hypersecretion, etc., an old house-wife's remedy is the inhalation of the fumes of garlic. It favors expectoration. Cases were mentioned of its good effect.

Dr. Tauber said that in the European hospitals very little medical treatment was given in simple pneumonia.

Dr. Kearney, for the purpose of asking the members of the Society as to the frequency of cases of cancrum oris, reported two cases of that disease, which had come under his care during the winter. One case was that of a female child $3\frac{1}{2}$ years old, conval-

escent from small-pox. Three days after he had discharged her he was recalled to see her on account of swelling of the left cheek. It was much swollen and quite resisting. Two days later he found on inspecting the inner surface of the cheek, that there were two or three ash-colored spots. The sloughing action spread so that in a few days more there was one large patch. The gums were also affected, and two or three teeth were loosened. There was a tendency to diarrhœa. The treatment was supporting. Stimulating washes were used, but they made no impression. He then applied nitric acid, having first cleansed and dried the parts, when improvement commenced at once, and the diarrhœal tendency disappeared. The fetor was removed by the use of carbolic acid.

The nitric acid was applied five days after the constitutional treatment was commenced, six days after the onset of the disease.

The second case was at the Clinic of the Miami Medical College. Following an attack of small-pox, a perforation of one cheek by a slough occurred. The inferior maxilla was necrosed, and a portion came away.

Dr. Walker said he had within the last week been interested in observing the effect of chloral over convulsions, in a child three years of age.

The child had two convulsive attacks in the morning, when *Dr. W.* saw it, and prescribed a mercurial and some assafœtida. At 3 o'clock P. M. he was called again, the child having had several convulsions. He then prescribed potass. bromidi. At 12 o'clock the next night he was called on to give the child something to quiet it. He prescribed $3\frac{1}{2}$ grs. of chloral to be given every hour until the child slept. After the administration of the chloral it had no convulsions. During the day it had twenty-two convulsions, one of which lasted fifteen minutes. The chloral was given twenty-four hours and then gradually withdrawn.

The Society met March 28th, 1876, *Dr. Comegys* presiding.

Dr. Miles reported a series of cases of rotheln, a disease which he thought was now epidemic in the city; a disease first described by German writers over 50 years ago, and since noticed by German, English and American writers, under quite a variety of names. Rotheln, Rubcola, Ritteln, Fenemassern, Folsche Massern, Roseola Febrile, Rubcola Scarlatinosa, Rubcola Morbilloso, German Measles, Rubcola Notha, Epidemic Roseola, Bastard Measles, and Bastard Scarlatina.

The nature of the disease has given rise to much discussion, some asserting that it was distinct from measles and scarlet fever, attacks of one of these giving no exemption from an attack of the former and vice versa; others that it is a hybrid of measles and scarlatina, or a modification of one or the other, of the cases which *Dr. M.* reported, five had had measles, in four of these he had attended the

patient during both attacks. Two had had scarlet fever; in one case he attended the patient.

The diversity of opinion as to the nature of the disease is probably due to the great difference in its course and symptoms, in different epidemics, in different localities, and at different seasons of the year.

Vogel describes the eruption as differing in no respect from measles and continuing but a day, or two at most, the desquamation being slight. In Liveing's cases the eruption was papular, and lasted several days.

Hillier describes the rash as at first resembling measles, but becoming more like scarlet fever. Smith says the rash usually occurs in certain patches having nearly the size and color of measles, interspersed with which are numerous smaller eruptions, scarcely more than points of the same color. Sometimes the rash is continuous over a considerable extent of surface resembling scarlet fever. It usually lasts about four days.

In Dr. Miles's cases the rash lasted, in four cases, three days, and in two cases, four days. In three cases there was desquamation.

The prognosis is almost invariably favorable, some cases have been followed by dropsy, diphtheria, and suppuration of the cervical glands.

The reasons for considering rotheln as a distinct disease :

1st. Rotheln occurs in person who have experienced both measles and scarlatina, and vice versa.

2nd. The disease differs from measles in the early appearance of the eruption and the absence of the sequelæ of measles. The eruption is often continuous over a considerable extent of surface.

3rd. The disease differs from scarlet fever in its mildness, in the character of the eruption, and the absence of sequelæ.

4th. The disease differs from roseola in the successive appearance of the eruption on the upper and lower parts of the body, and its covering the whole body. The eruption usually lasts longer in roseola. Rotheln occurs usually in the autumn and winter, roseola in the summer. Rotheln occurs in epidemics and is contagious.

Dr. W. B. Davis said an epidemic of measles had been prevailing since last fall, appearing shortly after the out-burst of small-pox.

He had seen nothing peculiar in regard to measles during the winter. That disease has pursued the same course as usual. He has not been able to recognize such cases as those described by Dr. Miles. He has frequently seen anomalous appearance of eruption during the prevalence of epidemics of eruptive diseases, when it was difficult for sometime to decide what the disease was. The evidence in cases of recurrence of exanthematous disease is often very defective. As to the difference in character between rotheln and measles, we often see the eruption present differently in different members of the same family, due to difference in degree or amount of eruption.

Dr. Quinn said he had some doubt as to the recurrence of exanthematous diseases, and some cases he had seen in the last year may have been cases of rotheln, which at the time of their occurrence were supposed to be cases of recurrent measles.

Dr. Miles asked whether in the cases of supposed recurrent measles there was much catarrhal trouble.

Dr. Quinn—More in the 1st attack than in the 2nd, more tenderness of the eyes.

Dr. Murphy said he had seen two cases, which the mother said were cases of recurrent measles. The patient did not have catarrhal trouble or disturbance of the eyes, as in measles, and the eruption was not quite such as would be seen in that disease. He thought *Dr. Miles'* paper would account for them. He thought the paper was based on facts. Second attacks of exanthematous disease were very rare.

Dr. Miles said all of the cases of the disease that he had treated were in the northern part of the city, one of the cases he had previously treated for both scarlatina and measles. He had been told by *Dr. Fishburn* that he had treated several such cases.

Dr. Holdt—In regard to recurrence of exanthematous diseases, referred to, two cases he had reported to the Academy of Medicine, of children who within one year had two well-marked attacks of scarlet fever, both attacks being followed by albuminuria. He has often seen measles recur, once three times in his own practice, and all of the attacks being well marked, not one symptom being absent.

One person in this city has had two severe attacks of small-pox during the last winter. As a rule the exanthemata are modified in the second attacks. The contagium may differ in different epidemics, causing certain characters of a disease to be differently manifested. In one case, that of a child sick with measles in bed with the father who had small-pox, the eruption of the former was populated, and so closely resembled the eruption of the latter that for a time he was uncertain as to which it was. In this case the variola may have modified the eruption of measles. He thought the cases reported as being cases of *rotheln*, were cases of modified measles, *rotheln* is not a disease *sui generis*.

Dr. Murphy—Is it not a very uncommon thing to see a case of recurrent exanthematous disease? Persons who have had measles are, it is safe to say, protected from a second attack, and the same is true of small-pox. Second attacks of syphilis or of yellow fever are rare, but they may occur in exceptional cases.

Dr. Quinn said that second attacks of small-pox are more apt to occur after the first attack has been forced, (as by inoculation.) He had seen three cases of recurrence of the disease. In one it was after inoculation.

Dr. W. B. Davis said he had not seen a case of so-called *rotheln*. He did not think there was evidence that it is a disease *sui generis*.

Dr. Culbertson said that *Dr. Hibberd*, of Richmond Ind. had reported a series of cases of *rotheln* occurring in his practice two years ago.

Dr. McReynolds said he had seen a case of recurrence of measles during the last winter, and in his army experience he saw several

cases of measles occurring in persons who said they had had the disease in childhood.

The President announced that Dr. Carson would read a paper at the next meeting "on the appearance of the tongue in disease."

The Society met April 4, 1876, on motion, Dr. Dandridge was called to the chair. The minutes read.

Dr. N. P. Dandridge read a paper on rectal explorations, published in May LANCET AND OBSERVER, also presented both specimens removed after such examination.

Dr. Murphy asked whether in rectal examinations the danger of laceration is not increased by repeated introduction of the hand. In the reported cases, have the examinations been repeated? or made by more than one person? He thought the knowledge gained by such examinations over what could be learned by other diagnostic means not sufficient to justify a procedure attended with so much danger.

Dr. Dandridge thought the first introduction of the hand was chargeable for all injury. Second examinations, are not, as a rule, justifiable, but as the case he had reported was soon to pass under the care of Dr. Connor, who was present, he thought it better that he should examine him.

In Dr. Wier's case two examinations were made. In five cases reported by Simon, all were examined three times, some as many as five times. In no case was there any injury except a slight tear at the rectal opening.

In the case he, Dr. Dandridge, had reported the possibility of an abdominal aneurism presented and it was deemed proper to resort to rectal examination to make a diagnosis.

Dr. Hough—Would it not be reasonable to suppose that the rupture occurring at the largest part of the rectum was dependent on the pathological condition present?

Dr. Dandridge—The abscess projecting into the rectum at the part, reduced its calibre so that the hand exerted greater force there than at any other part.

Dr. Mackenzie said he was present at a postmortem of a case which had been thus examined. There was a brown fluid found in the peritoneal cavity which must have been due to a rupture, although none was seen.

Dr. Dandridge said he saw the case referred to by Dr. M. It had been examined by Drs. Carson, Dawson and Connor. In that case the hand was pressed further up than in the case this evening reported. He saw a case, that of a negro girl, in which the examination was resorted to to diagnose an ovarian cyst, in that case no trouble followed, except a slight pain about the anus. In a case of peri-renal tumor, which he had seen examined by the rectum, there was a slight peritonitis following, from which the patient recovered.

Dr. Goode presented some uterine hydatids and gave the following history of the case:

In November I was called to see Mrs.——who had been married seven months. She menstruated once after marriage at the regular period, and passed the second period two weeks when, as supposed, she became unwell. She continued to lose blood from that time until November, occasionally large clots were passed. She had suffered from vomiting for about four months, which combined with the hemorrhage had reduced her very much. The uterus was about the size of six and a half month pregnancy. The motion of a foetus was said to have been felt for several weeks. There was almost constant uterine tenesmus, Pulse frequent and small. There had been a free hemorrhage just before Dr. G's call. A full dose of morphia was given which secured a good night's rest and he found her comfortable in the morning, on the second morning he was re-called and found that she had passed a large mass of hydatids. She made a rapid recovery without an intoward symptom. The interesting feature of this case is the fact that she had such hemorrhage for six months and such continuous nausea and vomiting without a fatal result. He said he had had four cases of hydatids and no fatal result. In one case there was severe hemorrhage which was arrested by the injection into the uterus of monsel's solution.

Dr. Miles said he had one case of hydatids which was fatal, owing to the ignorance of the midwife. The hemorrhage was due to want of contraction of uterus after such rapid deliving.

The Society met April 11th, 1876, Dr. Comegys in the chair.

Dr. Murphy reported the following case:

A.—fifty-six years old, American; has had syphilis for twenty years. He has been a saloon-keeper, and has been an excessive drinker. For five years past he has had frequent "bilious" attacks. He would lose his appetite, vomit his food, his tongue would become red and furred, throat coated with a viscid mucus, bowels very sluggish. Abstinence and a free catharsis with a saline would soon bring him all right.

For six months past he has had a cough, and has been losing flesh. He has been drinking as freely as ever.

On Tuesday last he got up at 5 o'clock, and walked to the window, recrossed the room, and fell upon the bed in an epileptic fit, after which Dr. Murphy was summoned. From 5 till 12 o'clock he had seven convulsions, attended with the usual symptoms of epilepsy.

He had no whisky from Friday morning until Saturday night, when he began to show some signs of delirium—no tremulousness.

Bromide of potash and chloral quieted him.

The next morning Sunday he complained of pain in the lower part of the abdomen and region of the kidneys—neuralgic pains, no doubt due to the alcoholic poisoning. On Monday evening the pain in the abdomen returned. Bi-meconate of morphia was given, which procured rest for the night. Tuesday, the day of this report, there was a return of pain, for which morphia was again given, and he was permitted three drinks of whisky per day.

There is some atrophy of the liver, and probably more or less cirrhosis. There has been no albumen in the urine, and no ascites or anasarca. This patient has been in the habit of drinking enormous quantities of whisky daily. In such cases, when the stimulant is withheld for a few days, neuralgic pains are apt to occur in the abdomen, and down the thighs, pains which are speedily relieved by the administration of stimulants.

It is not often that epilepsy occurs from alcoholic liquors, until there use has long been continued.

Dr. U. P. Judkins asked whether syphilis might not have been the cause of the epilepsy.

Dr. Murphy thought it due to the excessive use of alcohol.

Dr. C. P. Judkins said that a woman who had been a prostitute was under his care six years ago, having constitutional syphilis. Being of a scrofulous habit, her disease was very obstinate, but all the manifestations finally disappeared. He was next called to see her about four or five months ago, when he found her suffering from epilepsy, having several attacks in quick succession. She was in a semi-comatose condition, pupils dilated. Within the last year and a half she has had several epileptic attacks. There is now a slight tendency to paralysis of left side, mind somewhat disturbed. He thought the trouble due to a node, or to specific thickening of the dura mater. Under the use of large doses of iodide of potass, she is improving. The patient drinks very much.

Dr. Murphy thought that in his patient specificity has nothing to do with the epilepsy, syphilitic exostoses or neoplasm manifest themselves slowly. He thought the chronic alcoholism had more to do with it.

Dr. Comegys asked whether members had observed the alcoholic neuralgia mentioned by *Dr. Murphy*.

Dr. Culbertson said that one month ago he was called to see a saloon-keeper on Sixth street, who had delirium tremens, his third attack. After recovering from the delirium, he complained of intense pain in the shoulders, lower part of abdomen, and rectum. He thought the abdominal pain was muscular, rather than enteric. His pulse has been remarkably weak, has vertigo when he attempts to sit up, has been kept up by stimulants. The remarkable thing is that he abhors the stimulants and objects to taking them. The liver is no doubt cirrhotic.

Dr. Comegys said that he had noticed such pains after the excessive use of alcohol and opium.

Dr. Dandridge said these flitting and muscular pains are not due to the excessive use of opium and alcohol alone, but also to chloral.

It is given as one of the most constant symptoms of chloral poisoning.

Dr. Zenner asked as to the advisability of continuing alcohol in diminished doses, in the treatment of such cases. Is not the discomfort attending a diminution as great as entire abstinence? Would not even the diminished quantity do harm?

Dr. Murphy said these were important questions. In his patient, the urine was acid, contained urates in great abundance, sometimes oxalate of lime; he was amaciating. His stomach will not tolerate tonics. Even quinine is objectionable, when he takes no medicine he can eat a little food. At his age (fifty-six years) and in his condition, stimulants are demanded. If he were young and well nourished they might be withheld.

Dr. Miles said the pain in chronic alcoholism, and opium and chloral poisoning has not been explained. He suggested that a solution of this question might be found in the congested condition of the nervous system.

Dr. Taylor said there are two sources of pain, especially that manifested in the lower part of the abdomen. In old drinkers there is sometimes an accumulation of adipose matter about the rectum, when there is cirrhosis there is sometimes accumulation of fluid in the peritoneal cavity. These may cause discomfort or even pain.

In *Dr. Murphy's* case, as there does not seem to be ascites or anasarca, there does not seem to be this condition.

Dysentery is an occasional result in such cases.

The neuralgic pain in opium and chloral poisoning may be classed with the pain of typhoid fever, *i. e.* due to defective nutrition. *Anstie* says pain is always to be regarded as a cry of debility.

Dr. C. P. Judkins thought that when stimulants had been used for a long time it is unsafe to deprive the person of them at once. If the spree has been of short duration it may be done.

Dr. Zenner said he had seen old drinkers suddenly deprived of liquor without serious results.

Dr. Holdt said that when the stomach would not tolerate food or stimulants, they might be given per rectum. He mentioned a case in which the stomach became irritable after the long continued use of stimulants and morphine. The patient had to resort to injections, after which the stomach tolerated food.

Dr. Murphy advocated the erection of asylums for dypsomaniacs.

Dr. Comegys said that after considerable experience with persons addicted to the use of opium and alcohol, he thought it better to cut them off at once. The effort at gradual reduction is utterly valueless. He has had better success since he began this plan. In the opium habit he sometimes gives atropine for a short time.

He thought a reformatory institution for drunkards was very much needed.

He thought *Dr. Holdt's* idea of supporting the patient for a

time, by the rectal injections so as to allow the stomach a rest, was a good one.

Dr. Culbertson thought that age and physical condition should be taken into account. If a person on the downward grade of life, long addicted to the use of stimulants, were suddenly denied them it would be likely to prove fatal, but if the person was young, total abstinence should be enforced.

Dr. Taylor reported the following case of nausea and persistent vomiting due to pregnancy. A woman aged thirty-five, is now pregnant for the fifth time. During the first pregnancy, which occurred soon after marriage, there was nothing specially marked. During the second pregnancy she suffered with colic. In the third, there was nausea and vomiting which lasted through the entire time. In the fourth pregnancy there was such severe nausea and vomiting that a physician of this city advised her to submit to an abortion, which was done. In the present pregnancy which commenced about — weeks ago, there is almost constant vomiting. For a little while each morning she is able to take a little milk. The rest of the day she strains all of the time and can not take a particle of food. She suffered from ptyalism to an excessive degree. The saliva is very irritating. When swallowed it causes a sense of burning in the stomach and when it escapes from the mouth it irritates the skin of the face. She also has intense pyrosis, the worst symptom most of the time.

She has had intermittent pain in the abdomen, which *Dr. T.* at first thought that it was a threatened abortion, but she has now had this pain for three weeks. She is becoming very feeble. Her temperature is about normal, pulse generally about 90°, though sometimes, owing to muscular effort in vomiting, it goes to 108°. She is constipated. The uterus is in normal position and condition; the vagina is a little hot, on one occasion when making a digital examination, he found a little blood, the only time it has been noticed.

Pepsin, bismuth and ice (water increased pyrosis) have been given. She has an idiosyncrasy against opium. Chloral procured the first sleep that she has had to amount to anything. She can take no nourishment except milk with lime water. Milk alone is rejected.

Dr. Comegys remarked that for more than ten years he had treated the vomiting of pregnancy with complete success by the use of atropine in doses from one-sixtieth to one-eightieth of a grain as often as was necessary to bring the patient under its moderate influence.

The Society met April 18th, 1876, *Dr. Kearney* presiding.

Dr. Kearney reported the following case which came under his observation a few days ago:

An infant nine months old, which has been a healthy child except that it has had an eczematous eruption on its face for a short

time. On Monday, April 10, began to seem unwell, became peevish and fretful, and on the following day took nourishment with reluctance. On Tuesday night it was again restless, and at 3 A. M. it had a convulsion. An hour or two later it had a second, and at 6 A. M. during Dr. K.'s first visit it had a third. These were repeated so that by noon it had seven or eight. The intervals became shorter and shorter until $3\frac{1}{2}$ P. M., when it died. About an hour before death the temperature was $107\frac{4}{10}$. There was no evidence of irritation about the gums, there were no teeth appearing. On having the child stripped to put it into a bath he saw a faint appearance of papular eruption over the chest. He had been unable to come to a satisfactory conclusion as to the cause of the convulsions.

Dr. Goode said that he was called in the winter to see a child which had just recovered from varioloid. It presented all the symptoms of measles, and in a few days the eruption of that disease appeared. A few days later a younger child in the same family was taken with varioloid, during the initial fever it had several convulsions. The varioloid was followed immediately by an attack of measles as in the older child.

Dr. Zenner reported a case of confluent small-pox, which during the initial stage was complicated by severe convulsions.

Dr. Goode said that he was called a few weeks ago, to see a woman, fifty-four years old, who had married at the age of thirty-two, was married about eight years when her husband died. About two years before his death she began to suffer great pain in coitus, which increased to such a degree that it had to be abstained from. There was spasm of the sphincter vaginal, and irritation extending to the bladder and rectum. There was constant desire to void urine and to go to stool. The constant dribbling of the urine caused excoriation of the labia. So great was the vesical tenesmus and spasm of the sphincter vaginæ, that she could not sleep more than fifteen minutes at a time.

Three years ago she entered the Cincinnati Hospital for treatment, when the following diagnosis was made: "Congestion of uterus and vascular tumor of urethra." Some operation was performed, the nature of which Dr. G. did not know, which gave some, but not entire relief, after which she left the hospital. The trouble soon began to increase again, and continued to grow worse until Dr. G. saw her. She then had some leucorrhœa, there was a vascular appearance along the anterior of vagina, constant spasm of spincter and great hyperæsthesia of the vulva. The vesical tenesmus was extremely distressing. Failing to relieve this by local application he divided the spincter vaginæ. This gave relief to all the distressing symptoms except hyperæsthesia of the caruncule myrtoformes, which were afterward excised. The bladder gradually became more tolerant and she can now pass the entire night without having to get up. She appears to be entirely relieved.

Dr. W. B. Davis reported the following case: A man applied at his office complaining of pain in his head and some irritation of stomach. A cathartic was ordered, to be followed by bromide of potassium. At midnight *Dr. D.* was called, the pain having increased. Morphia was prescribed, of which two grains were taken before morning without relief. Bromide potass and morphia were given through the day. The second night was also passed without sleep. The following morning his temperature was 102° , pulse 130° . The bromide and morphia continued. The third night the pain continued. A blister was applied which gave some relief. The pain now shifted to the shoulder. The pulse 100° , the temperature 100° . On the fourth night twenty grains of assafætida were given which procured the first night's sleep since the beginning of the attack. The assafætida was continued, with the addition of quinine, and he made a rapid recovery.

Dr. Murphy asked whether the case did not come to a termination without regard to treatment.

Dr. Davis—No. The exhaustion was great. Six grains of morphine had been given in three days without any effect. The action of the assafætida was marked, and its suspension was followed by a return of restlessness. The temperature did not fall below 100° until after its administration.

Dr. Holdt said he was called to a family in which there were three children, all of whom had been vaccinated at one time by a barber. The crusts had been removed from the arms of two, but on the third, the child that *Dr. H.* was called to see, they were still adhering, although nearly one month had elapsed since the vaccination. They presented the appearance of a genuine vaccination, yet this attack proved to be one of confluent small-pox. The other children escaped.

Two other cases were reported of small-pox following soon after vaccination.

Dr. Kempton said that he had been taught to believe that a person should not be considered as protected until vaccination had been repeated without success. One vaccination may not always be sufficient.

Dr. Walker thought if a successful vaccination had been followed so soon by varioloid it would have been strange, but to be followed by confluent small-pox seemed to him mysterious. He doubted whether it was a genuine vaccination.

Dr. W. B. Davis thought with *Dr. Walker* that this was not a genuine vaccination. Vaccination is performed by too many persons who are too ignorant to judge whether the result is a genuine vaccination. The opinion that vaccination is not a protection against small-pox is due to such frauds.

Dr. Holdt said that when he saw the scabs they presented the characteristic appearance of genuine vaccination.

Dr. A. P. Dandridge said that *Drs. Walker* and *Davis* had lost sight of one fact, that three children, all of whom had been vac-

cinated at one time, and with the same matter, were exposed, and yet only one took small-pox. The other two remained in the same room but escaped the disease. He thought the one who took the disease not fully protected.

Dr. Murphy said, several questions presented, 1st was it known that all of these children were vaccinated with the same matter? 2d. Is it not strange to see the crust adhering for a month, if the vaccination is genuine? 3d. May it not be possible that the barber who vaccinated the children transmitted small-pox virus with the vaccine virus? It might be asked, why the disease did not present sooner, if such were the case? To this it might be answered that the pathological condition caused by the vaccination might postpone the action of the small-pox poison. If the children were all vaccinated with the same matter, it is certainly a strange case. No person should be considered safe until vaccinated without effect.

Dr. Walker thought that *Dr. Murphy's* theory that the vaccine might postpone the action of the variolous virus would upset the whole theory of protection by vaccination. If a genuine vaccination took first it should have protected from small-pox. If the matter was good he would class this as an idiosyncrasy.

Dr. Kearney asked whether the vaccinations ran the same course in all three of the children.

Dr. Holdt said he did not see the two children who escaped until after the crusts fell off, but learned that they fell off successfully, at times not stated.

The Society met April 25, 1876, *Dr. Comegys* in the chair.

In absence of *Dr. Stanton*, *Dr. Zenner* was appointed Secretary for the evening.

Dr. Murphy reported the following case:

A man of average height, temperate habits, cigar packer, with no venereal taint, came to him eight months ago complaining of dizziness. There were no other symptoms of disease except a feeling of weakness in lower extremities. He improved under treatment and disappeared from view until six weeks ago when he returned complaining again of dizziness and a greater weakness in lower extremities. On careful examination no organic disease could be detected. There was nothing abnormal about the special senses, or in sensation or motion. The bodily functions were normal, the appetite good. The man had been a cigar packer for two years. He said the odor of tobacco, in the room where he worked, was sometimes so strong as to drive him from the room. The doctor also discovered that he was addicted to excessive venery. He was cautioned about the latter excess, was ordered to discontinue the use of coffee and tea, also all alcoholic beverages which he had used only moderately, and was given quinine and nux

vomica. Saw the patient two days ago. There had been no improvement. At that time the pulse was 56. Does not know what his normal pulse is. The question is what is the cause of the vertigo in this case. Vertigo is a symptom of organic and functional disease of the brain, also of disease of the heart. There is also a stomach vertigo, and vertigo from the use of tea, coffee, and tobacco. A close examination of this case revealed no organic disease, and the Doctor could attribute the trouble only to the tobacco atmosphere which the patient inhaled, and to the excessive venery.

In answer to a question from Dr. Comegys, Dr. Murphy stated that the sphincters and urinary organs were in normal condition.

Dr. Carson said that the case suggested important considerations, especially in its physiological relations. We are apt to look for the explanation of symptoms to one organ, when they are dependent on several, or on the disturbed relation between them. He has never seen tobacco produce these symptoms, and does not feel inclined to believe them entirely dependent upon it. Possibly the second cause mentioned, excessive venery, may sufficiently explain them. Yet he thinks there are indications of serious trouble in this case. The persistent vertigo, the slow pulse, and weakness of lower extremities are at least threatening symptoms. We know that in vertigo from brain lesion, the heart's action may be inhibited through the pneumogastric. Dr. Unzicker the last few years had occasional attacks of vertigo, the most serious occurring four months ago when he fell and became aphasic, continuing so several weeks. During each of these attacks there was feebleness of heart especially marked in the above. He had also some gastric symptoms, offensive breath, poor appetite, &c.

Another physician after taking a hearty and hasty meal, was seized with precordial pain. While visiting a patient was attacked with severe vertigo, and shortly afterwards nausea. With the aid of an emetic, he threw up undigested contents of stomach three-quarters of an hour after meal. There was during the attack great feebleness of the heart, free perspiration, cold extremities, in fact, almost a condition of collapse. This state lasted several hours. The severe vertigo gradually verged into a wavy dizziness which continued several days. The same gastric symptoms were present in this, as in the preceding case.

In a third case a man in rather delicate health, while stooping, was suddenly seized with severe darting pain in the head, and on rising felt very dizzy. Was on his way to his stable to feed his horse, when, upon his arrival he fell, and thinks he was unconscious about twenty minutes, but recovered sufficiently to accomplish his errand. When he reached the house he noticed a spasmodic movement of left arm and left pectoral muscle. Also left leg felt weak, so that he tripped and fell. When seen by a physician, twenty minutes later, the surface was cold bathed in free perspiration, the pulse was feeble, almost imperceptible, and quite slow, between 40° and 45°. There has been vertigo, some nausea, a slow pulse, and

the same gastric symptoms as in the other two cases, since that time. He has also had severe pains in his head on the side opposite to that of the paralyzed limb. This pain is in the course of the 5th nerve, but especially in the supra orbital branch. It is very severe and relieved only temporarily by hypodermic injections of morphia. In the second case mentioned there is a similar pain.

This combination of symptoms, somewhat similar to that in Dr. Murphy's case can scarcely be referred to the stomach for causation, but rather indicates incipient trouble at base of brain.

The weakness of lower extremities in Dr. M.'s case is not necessary of spinal origin. In the case last detailed there was pain in the back, also priapism on the day of seizure. In the latter case there is no specific taint, and no impairment of the general health. But there is a cardiac bruit at apex.

Dr. Comegys, referring to Dr. M.'s case, said that he could scarcely believe there was any disease of the spine either organic or reflex as there were no shooting pains in body or limbs, and no urinary trouble; nor could he refer the symptoms to cerebral lesion. The prominent features of the case, vertigo and weakness of extremities, he thought were due to the patients living in a surrounding which was not normal to him, breathing an atmosphere capable of disturbing the vasal nerves. As to the pathology of vertigo, it may be caused by an overfilling of cerebral vessels, or by their depletion. The latter is well illustrated in fainting people, also in the vertigo produced by irritating ingesta acting reflexively through the pneumogastric. He mentioned the case of a physician who sometimes had attacks of vertigo lasting several hours, accompanied by feeble action of the heart, which attacks seem to be always due to trouble in the stomach.

Unpleasant odors will not infrequently produce vertigo. Has himself been thus affected by the odors of pomade and musk. In the case under consideration the odor of tobacco was the offending agent. It disturbed the innervation of the vasal nerves, which affecting alike the organs of consciousness and of locomotion caused vertigo and weakness. He would advise the removal of the patient from his present unwholesome atmosphere.

Mentioned case of an upholsterer, who had frequent attacks of vertigo, so violent that he would fall down in the attack, with no assignable cause. There was no trouble in stomach, and habits were good. Under a course of treatment with bromide of potash and ergot he entirely recovered.

Dr. Murphy reported another case to show of how little value was the condition of the pupil as a symptom. A child, five years old had an attack of scarlet fever and six months afterwards became jaundiced. When seen by Dr. Taylor (with whom Dr. M. saw the case) there was anasarca and albumenuria; but these soon disappeared, the jaundice remaining. About ten days ago the child became dull and sleepy. A week ago it was seen by Dr. M. It was then lying on its side, appeared to be unconscious, was very irrita-

ble on being touched. There was no elevation of temperature, pulse 100° , slightly irregular. Pupils were fully dilated and immobile. Had lapsed into this condition during the last few hours. Bowels were obstinately constipated. He thought the prognosis was unfavorable, but was surprised on the following day to see the child sitting up in bed, quite lively, pulse 85° . An examination of the liver indicated some atrophy. After three days he again saw the child. It was then unconscious, head hot, pupils fully dilated, and died on the following day. There had been no suppression of urine, jaundice continued until death.

A few days ago saw a child whose pupils were in a similar condition, and was also very irritable when touched. Thought the prognosis was unfavorable, but after free purgation the child was all right on the following day.

Dr. Carson asked if the first case was not probably acute atrophy of liver. *Dr. Murphy* had so considered it.

Dr. Comegys two years ago was called to see a man with the ordinary symptoms and history of catarrhal jaundice. He had been doing well, when at the end of the week, the doctor was called to see him in great haste, found him screaming, pupils dilated, semi-conscious, having passed no urine in twenty-four hours. In this case there were both cholemia and uremia. The man died in convulsions.

Dr. McReynolds had one case with history similar to the latter.

Dr. Carson—And in *Dr. Murphy's* case the condition of pupils was probably not an accidental feature of the case. The fact of consciousness supervening on unconsciousness does not contra indicate brain lesion. Such cases occur. He mentioned one case of a high liver who was unconscious and had other symptoms of cerebral disease, became again conscious, though on the following day he died comatose. Another case of meningitis running rather a chronic course had a similar history. A late authority states that consciousness may return while the cerebral disease is progressing, to be followed by unconsciousness and death.

One of the cases he had already detailed brought up the interesting question of temperature in cerebral lesions. In this case there was severe pain every evening, an hour previous to the pain there was a temperature of from 103° to 104° , and on the following morning some sweating. The man had lived in a malarious atmosphere, though there had never been any other manifestations of the disease. Large doses of quinine were given but did not affect the temperature. Five weeks ago the pain was not periodical, and there was probably no rise of temperature. Two weeks ago periodicity and high temperature returned.

Is the rise of temperature of malarial origin or due to inflammatory cerebral disease? He thinks the latter the correct explanation, as abnormal sensibility, some want of co-ordination, deflected tongue and other symptoms indicate progressing trouble.

Dr. Comegys asked whether in acute atrophy of liver consciousness would supervene on unconsciousness.

MEETING OF THE CENTRAL OHIO MEDICAL ASSOCIATION.

ABOUT SEVENTY MEMBERS IN ATTENDANCE.

The Central Ohio Medical Association met at the Council Chamber, City Hall, Columbus, May 4.

Dr. Landon, Chairman of the Executive Committee, reported that they had obtained the Council Chamber for the meetings of the Society, at a cost of one dollar per meeting.

Dr. S. D. Turney, of Circleville, and Dr. Helmick, of Franklin county, were proposed and elected members of the Association.

Dr. Loving being present, and the first on the list of essayists, proceeded to read a paper on the subject of Physician's Prescriptions. He first referred to the apothecaries of the Egyptians mentioned in Holy Writ, and their prescriptions as being the first of which we have any account, and that the prescriptions of physicians of to-day were nearly of the same style as those of former times. The different parts of a prescription were designated, and wherein a prescription differed from a medical formula. He discussed the importance of using symbols and abbreviations correctly in all prescriptions, and it was better to write the names of some drugs in plain English—such articles as were dangerous in small quantities—and those in which mistakes have been made. The number of unfortunate mistakes made by physicians and druggists would never be known until the day when all things were revealed. He gave instances of mistakes and the liability of physicians to make mistakes as well as druggists in both their abbreviations and orthography.

The paper, on motion of Dr. Andrus, was received and placed at the disposal of the Society.

Dr. Pooley remarked upon the castigation given by Dr. Loving in his paper to physicians on the carelessness and slovenliness of writing prescriptions, of which he, like St. Paul, would confess he was the chief of sinners, for he said he had written prescriptions in all sorts of ways. He advocated simplicity in prescriptions as being much preferable to those of a complex character written by physicians of ancient times, and was in favor of writing prescriptions and directions in plain English. He differed from Dr. Loving in separating surgery from medicine—both surgeon and physician should understand the anatomy and physiology of the system, and both were called upon to treat diseases of the same character. All the medical knowledge and all the medical skill necessary to make a good physician was necessary to make a good surgeon, and more too—he must have the nerve, act promptly, decide quickly, etc.

The Association then took a recess until half past one.

AFTERNOON SESSION.

The Society was called to order by the President.

Dr. Landon proposed Dr. McLaughlin, of Tremont, Ohio, for membership, who was thereupon elected.

The further discussion of the subject of Dr. Loving's essay was dispensed with, for the purpose of hearing the paper of Professor D. A. Morse.

Dr. Morse stated, that in reply to a letter, written by him to the Chairman of the Executive Committee, asking not to be announced for a paper for this meeting. Dr. Landon said there would be enough to fill the time without it—for reviewing some late works upon Nervous Disorders, he had been interested in one matter to which he desired to call the attention of the Society—not that he had any original ideas to present upon it, but because writers threw so little light upon it: *The Differential Diagnosis of Cerebral Hyperæmia, or Congestion, and Anæmia*. Before coming to Columbus, that morning, he had committed the points to writing. On being asked to brief the paper for publication, he has furnished it entire as read before the society, the title is: "Upon some Points Relating to Cerebral Hyperæmia or Congestion and Anæmia"—in the work upon nervous diseases by Dr. Bauduy, page 60, the author says: "The symptomatic manifestations of hyperæmia and anæmia being identical, furnish no clue by which we can recognize and differentiate two pathological conditions diametrically opposite in character, the history of the case, concomitant somptoms, and general condition of the patients system will therefore furnish the only reliable data upon which to base our conclusions, which would necessarily be erroneous were we to rely exclusively upon the cerebral symptoms, or even attach undue importance to the appearance of the patient; having stated that pallor may co-exist with profound and dangerous hyperæmia thus constituting a source of fallacy not to be forgotten."

Hammond, p. 46, last edition of his work upon the same subjects, "from cerebral anæmia, the first stage of congestion is frequently not clearly distinguished, and I have seen several cases in which patients had been treated for the one condition, when the other was indubitably present. In both there are headache, sense of constriction, vertigo, noises in the ears, numbness, mental confusion, loss of memory, inaptitude for labor of any kind, and at times loss of consciousness. But in *anæmia* the face is not flushed, the carotid and temporal arteries do not throb with violence; the pulse is quick, feeble, and irregular, the respiration is hurried, the pupils are dilated, there are bellows murmurs at the base of the heart and in the veins of the neck, and the general aspect of the patient is not of that rugged appearance so generally associated with congestion." He gives paleness of the face, coldness of the skin, and feebleness of the heart's action as evidence of *anæmia*.

Bauduy says: The different symptoms enumerated as belonging

to the several forms of hyperæmia of the brain are also common to other affections, and it is essential to be able to discriminate between them, in order not to adopt a treatment based upon an incorrect diagnosis, which in certain instances might prove dangerous, or even fatal. Were we for instance, to treat a hyperæmic patient for anæmia, we should be likely soon to sign his burial certificate, though the pallor sometimes present in hyperæmia might lead us to think the patient suffering from anæmia. He says "the hyperæmia of children often resembles meningitis. The last very fatal the other not necessarily so." Irritation from teeth, and in the bowels of children, is an inhibitory influence that often paralyses the vaso-motor system of the brain—the vessels thus relaxed, give rise to a hyperæmia, the head is hot. Physicians speak of this condition as *congestion*, apply cold or heat, both in this case having a similar influence in stimulating contraction of the vessels, the brain is unloaded. On the other hand anæmia of the brain is induced by over stimulation of the vaso-motor system, directly or by reflex action indirectly. Convulsions, spasms or paralysis may result. This is in keeping with the extracts we have made, we have made them as a text for our short article. They show that the most recent writers have advanced our knowledge of the subject, but little more than previous observers. The work of Hammond has scarcely had time to dry, since leaving the press, yet it is able to furnish, but little more satisfaction concerning the point in question than the others.

In the edition of the work of Hanfield Jones, published some ten years ago, it is said: "The diagnosis of cerebral anæmia is evidently a point of the highest importance, and one which may by no means be always easy. When the face is pale, the scalp cool, the eyes uninjected, the general circulation quiet, when there is no appearance of cerebral excitement, but rather of failing power, when the recumbent position affords relief, and the distressing sensations in the head are described as a weight at the vertex, or a feeling of opening and shutting, and as if the top of the head were being lifted off, the nature of the case is clear."

While writing this, a case treated a few days ago is brought to mind by this last sentence of Dr. Jones. A lady who was attacked with pneumonia, became my patient the night before the April meeting of this Society. She made a rapid recovery, but was soon after attacked with a violent neuralgia—a periodical trouble occurring once in twenty-four hours and lasting from 6 to 10 hours. She is now free from the neuralgia. She says that at times her head feels as if it were halved—one-half being at one side of the room, the other at the other. Again it seems as if the division took place horizontally—the upper portion opening up and backwards. She is very anæmic, *spanæmic*, the blood being bad, deficient in nutritive properties. There is headache, arterial throbbing, debility, loss of appetite, and contrary to the views of most writers upon anemia, wakefulness. It is one of that class of anæmic pa-

tients that are made worse by the use of ordinary tonics, the oversensitiveness of the nerve centres, or excitability, not tolerating anything that stimulates their activity. During the whole course of this case I found it necessary to use opium—at first in pretty full doses, then as improvement followed in smaller doses. Muller, (p. 679, Vol. i, Physiology), has shown that opium “diminishes the excitability of the nerves.” But in cases where excitability is abnormal and dependent upon exhaustion of the nerve centres, opium may act as a toner or stimulant. In these cases we must study its effects as to whether it acts mainly upon the cerebro-spinal system or the sympathetic. The first effect upon the vaso-motor is to induce contraction of the blood vessels by stimulating this system of nerves—then sleep follows when it paralyses the vaso-motor congestion and consequently wakefulness results. Pain paralyses the heart, and also the whole vaso-motor system. Claude Bernard has shown, 15th Lecture of his *Physiologie et Pathologie du Systeme Nerveux*, that when ever he produced pain, in his experiments, the force of the heart's action was diminished. I am satisfied that in many so called anæmic cases there is actually hyperæmia of the brain. Neuralgia having depressed the heart's action, there undoubtedly was hyperæmia of the brain in my case. The enfeebled and relaxed arteries were stimulated to contract by the opium, the brain was unloaded, to this influence of opium is probably due its power in arresting hemorrhage, two full doses with some patients defeating the object for which it is given, care should be taken to give it in small doses, frequently repeated until the desired effect is obtained. When opium acts mainly in stimulating the intellectual centres, there is increased mental activity, especially of the representative faculties, as imagination. From the influence upon the sympathetic we have disturbance of functions, arrest of secretion, apparently diminished vital activity, although in the main there may be an influence exerted to prevent exhaustion and give tone to the weak and irritable nerve centres.

In considering hyperæmia, authors usually make two forms: Active and Passive. Bauduy follows this division while Hammond subdivides each form into six others: 1, Apoplectic; 2, paralytic; 3, convulsive; 4, soporific; 5, maniacal; and 6 aphasic.

Active congestion may supervene without much warning, the usual course however is that premonitory symptoms herald its approach. During this stage these symptoms may be light attacks, transitory vertigo, &c., evidences of already existing congestion. The congestion may appear suddenly and as suddenly disappear. This is particularly the case in the early stages of general paralysis, before there is much mental disturbance. It is impossible at this time to state what form the well developed attack will assume. There is in these cases transient loss of mental activity, sparks fly before the eyes, in some cases, but when the attack is prolonged there is greater mental activity, wakefulness, an irritable, passionate condition that distinguishes it from the apathetic, impassionate,

lethargic state of anæmia. The pupils are contracted, the face flushed, while in anæmia the opposite generally exists. Syncope is common in anæmia, vertigo in congestion. Both may have vertigo, ringing of the ears, inability to sustain physical or mental fatigue, memory fails, judgment is weakened, in short the symptoms are those of nervous exhaustion, and the same condition results from want of healthy nutrition.

In hyperæmia the muscles contract with slight stimulus, there is convulsive twitching of individual fibres or particular muscles as around the mouth and the eyelids. Speech is difficult often, appears thick, indistinct, words are not pronounced correctly.

In the *apoplectic* form the onset is sudden, the patient loses consciousness and if erect will fall. Paralysis is apt to follow, of a limb or half the body. It resembles true apoplexy, but is more transient. These attacks may begin as simple active congestion and as with general paralytics result in true apoplexy, effusion of blood. The mental obscurity may vary from a passing cloud to total loss of consciousness. In general paralysis we have the clearest exhibition of all forms of congestion.

The *paralytic*, as described by Hammond, is the apoplectic without loss of consciousness. The *convulsive* differs but little from an ordinary epileptic attack. The consequences are regarded as the distinctive features that separates it from epilepsy: stupor, paralysis, pain in the head, vomiting, contraction of pupils, &c.

All these symptoms, individually considered, may occur with true epilepsy.

As you are aware these divisions are purely arbitrary. Some writers multiply them still more. Andral makes *eight*. They are based upon the predominance of some one feature of the case, and often is only imaginary.

Passive congestion is usually the result of causes that operate upon broken down constitutions, as in old age, the anæmic, those who have suffered from loss of blood, &c.

In active congestion the blood is arterial, while in passive it is venous.

In hysteria we usually have evidences of anæmia, dilated pupils, cold surface, pallor, but through excitability of the enfeebled nerve centres there may be alternations of congestion and anæmia with nerve centres.

Claude Bernard has demonstrated, in the work we cited above, that abnormal excitability of nerve cells precede their paralysis. This is illustrated in hysteria, chorea, &c.

The experiments of Kussmaul and Tenner throw much light upon anæmia. * * * * * * *

How shall we reconcile the same set of symptoms, with two different pathological conditions?

We must study cerebral nutrition. It matters little what the condition of the circulation is if the same effect is produced upon nutrition. We must give attention to the pulse, the state of the

capillaries, temperature, mental states, as to hallucinations, the character of the distress produced, muscular contractility, in short an opinion only can be correctly formed by giving attention to every thing relating to the case.

On motion of Dr. Andrus, the paper was received and placed at the disposal of the Society.

Dr. Landon proposed Dr. J. B. Thompson as a suitable person to become an honorary member of the Central Ohio Medical Association, who was thereupon elected, and responded in some well timed remarks.

The discussion of Dr. Morse's paper was then declared in order.

Dr. Kinsman remarked upon the paper, and as it was incomplete, he suggested that the paper be recommitted to Professor Morse, with the request that he elaborate the subject for the benefit of the Society, and read it at the next meeting.

Dr. Wirth having come in, and being on the programme for a paper, was called upon for his paper, which was on the subject: "Is pseudo-membraneous croup and diphtheria essentially one and the same disease?" This paper was read before the Society at the March meeting, when there were but few members present, and it being then considered so interesting and exhaustive of the subject, the doctor was requested to read it again when there were more members present. The paper was quite elaborate and presented in a clear light the distinctions of the two diseases, or the differential diagnosis between the two diseases—pseudo-membraneous croup and true diphtheria. The history and causes of the two diseases were fully dilated upon.

As there were other matters pressing, on motion of Dr. Wagenhals, the paper was received and placed on file, and made the special order for discussion at the next meeting.

Dr. Landon proposed the name of Dr. Joseph Bulen, of Grove City, who was elected a member of the Society.

Dr. Landon proposed Dr. R. Hills, of Delaware, as an honorary member of the Society, who was elected, and indorsed by Dr. Little, of Delaware, and Dr. Thompson, of Columbus, in some laudatory remarks.

Dr. Hamilton being the last on the programme for reading a paper at this meeting, being called for, read a paper on and exhibited a pathological specimen of fibroid tumor, as taken from the cavity of the uterus. He described the manner of arriving at a correct diagnosis of this class of tumors, this being the chief object he had in presenting this specimen and writing his paper.

Dr. Pooley described an operation which he performed for removing a tumor of a similar kind. He remarked upon the superior instrumentality of later times to that of former times.

The appointment of delegates to the State Society and American Medical Association were then announced by the President.

Following are the delegates to the American Medical Association, which meets at Philadelphia, June 6, 1876:

Drs. C. P. Landon, Westerville; Starling Loving, Columbus; J. D. Nourse, Reynoldsburg; J. W. Hamilton, Columbus; D. A. Morse, London; D. N. Kinsman, Columbus; J. A. Little, Delaware; Rudolph Wirth, Columbus; Joseph Helmick, Harrisburg; C. B. Ferrel, Columbus, and Dr. Follett, Granville.

Following are the delegates to the State Medical Society, which meets at Put-in-Bay, June 21:

Drs. P. M. Wagenhals, J. H. Pooley, Columbus; T. B. Asbury, O. Johnson, Worthington; O. Frankenburg, D. Halderman, Columbus; W. T. Otis, Pataskala; J. R. Marshall, Dublin; A. Andrus, Westerville; S. C. Helmick, Commercial Point; G. S. Stein, Z. F. Guerin, B. F. Norman, Columbus; L. Woodruff, Alton; W. W. Bickett, Worthington, and T. Jones, London.

The society then adjourned to meet at the call of the Executive Committee.

O. JOHNSON, M. D., *Secretary*.

CLARK COUNTY MEDICAL SOCIETY.

ANNUAL MEETING—DR. POLLOCK'S VALEDICTORY ADDRESS—DISCUSSION ON SMALL POX.

Reported by DR. ISAAC KAY.

The Clark County Medical Society held their regular annual meeting for 1876 on the 11th day of May, in the city of Springfield. Dr. C. Pollock, President, in the chair. Members present: Drs. Banwell, Bishop, Bryant, Buckingham, Carroll, D'Richey, Driscoll, Ewing, Hazzard, Hebble, Kay, Kennedy, Marquart, Owen, Pollock, Reeves, Rice, Rodgers, Stonebarger, Totten and Whitehead.

The names of Drs. Ira Bishop and McK. Driscoll, were proposed for membership in the Society and received.

This being the annual meeting, the Society proceeded to the election of officers for the ensuing year, resulting as follows:

President—W. H. Reeves.

1st Vice President—W. H. P. Totten.

2nd Vice President—C. D' Richey.

Secretary—Isaac Kay.

Treasury—J. H. Rodgers.

Board of Censors—J. H. Rodgers, L. S. Rice, E. Owen, A. M. Whitehead, and W. G. Bryant.

Dr. Reeves having been escorted in due form to the Presidential chair, Dr. Pollock, the retiring President, then delivered his valedictory address, for which he received the thanks of the Society.

DR. POLLOCK'S ADDRESS

MR. PRESIDENT AND GENTLEMEN OF THE CLARK CO. MEDICAL SOCIETY—Accompany me while I “Go for the Doctor.” Lives there an individual within the limits of civilization, who has arrived at the age of puberty, that has not at some time felt the Doctor’s fingers pulps noting the pulsation of the radial artery or been blandly invited to “put out your tongue.” From the day when the infant Cain, playing at his mother’s knee, proclaimed an important discovery, by raising his voice in tuneful song, simply by bringing his little nose in violent contact with the ground, the Doctor may be said to have existed, and now he is numerous and ubiquitous. In fact there are more Doctors than all other professions combined; and in proof of this assertion, it is related that the Duke of Ferrara at one time propounded the question, in what calling are most men engaged? His Court fool, Gonelli, answered there were more physicians, and laid a wager to prove it in twenty four hours. The next morning Gonelli left his lodgings wearing an expression of pain, and having his head tied up, and started for the palace of the Duke. The first one he met asked what was the matter, and received the reply that he had a raging toothache. I know the best thing in the world for it, my friend! said the other, and told his remedy. Gonelli inscribed his name on his tablets, pretending to be writing down his recipe. A few steps farther on, he met several talking together. He was asked the same question and each one gave him a remedy. He wrote down their names as the first, and pursued his course to the end, without meeting a single person who did not give him a cure for the toothache, different from all others, and assuring him of its infallibility. Having arrived at the court of the palace, he found himself surrounded by gentlemen, who, having sympathized with him, each one gave him a cure. Having entered the chamber of the Duke, the same scene was re-enacted, and the certain and speedy cure was forthcoming from the Duke himself. The jester, throwing off his disguise, exclaimed, and you also, my Lord! are a physician. Look at my list and see how many I have met between my lodgings and your palace. Here are nearly two hundred, and I have only passed through one street. I will engage to find ten thousand in this city, if I go everywhere; find me as many persons engaged in any other business. This veracious anecdote closes with the assertion of the fact, that every one meddles with medicine, and that there are few men who do not think they know a great deal about it, even more than physicians themselves, all of which is capable of demonstration in this afternoon of the nineteenth century. But it is not these pretenders or empirics, we would visit, but the true disciple of the healing art, who, “with hands made pure, and heart of faith severe” devotes all his energies in acquiring a knowledge of its mysteries. His lineage is an honorable one, and his pathway, all the distance back to the morning of time, is resplendant with the

glory of his achievements. Voltaire says that men who occupy themselves with studies and efforts to give health to other men, from the sole principle of humanity, should be considered far above the grand of the earth, they are kindred to divinity—to preserve and repair, is nearly as admirable as to create. At one period in Egypt the practice of medicine was confined exclusively to the priesthood, and to show the high standing of these depositaries of medical knowledge, it is stated that previous to the ascent of a king upon the throne, he was to be inducted into the rites and mysteries of the priesthood, and made a priest, or be debarred from assuming the crown. The highest honors were paid to the “God of Medicine.” At Epidaurus, the birthplace of Æsculapius, the god of medicine, was venerated under the figure, made of gold and ivory, of an old man, seated on a throne, holding in one hand a sceptre, and resting the other upon the head of an enormous serpent. A dog, the emblem of vigilance, reposing at his feet. Æsculapius himself was said to be the son of Apollo, and his worship was co-extensive with the known world. It is related of him that he brought the dead to life, and that Pluto, alarmed to see the number of new arrivals to his gloomy domain diminishing day by day, complained to Jupiter, who destroyed the audacious healer. On this account, says a wit, the modern children of Æsculapius abstain from performing prodigies. But if Montaigne were now living and in possession of the Medical News and Library for August, 1872, he would be compelled to retract and swallow his malignity. John Wood, Surgeon to Kings College Hospital, relates to his class in a lecture on tracheotomy, that being called in the middle of the night to the relief of a medical man, suffering from laryngitis, he found him moribund; while rapid incisions were being made to expose the trachea, the patient ceased to breathe, the pulse stopped, and all seemed stilled in death. An obstacle having been met in the ossification of the rings of the trachea, more time than usual was consumed, and it was only by converting the scalpel into and using it as a saw, that entrance was effected. After using artificial respiration he was encouraged by a sigh of inspiration, and in less than a quarter of an hour the patient was sitting up in the bed and expressing himself as comfortable, and writing upon a slate a professional criticism upon the urgency of the operation and the dexterity of performance, and the surgeon remarks, that in place of the old adage, “while there is life there is hope,” the higher truth may be applied, beyond life there is hope. This is not an isolated case, but might be supplemented by scores. But to return to our subject. The novitiate at the time, and probably previous to the days of Hippocrates, was required to take a solemn oath or stipulation, and the one handed down to us under the name of the Hippocratic is familiar to you all, and if it was rigidly observed by those bound, certainly but little could have been left for censure in their lives or practice. For they were to pass their lives and practice their art with purity and holiness, and

abstain from every voluntary act of mischief or corruption; and beside all this, they were to refrain from repeating anything seen or heard in the lives of their patients, in the line of professional examination, which ought not to be spoken of abroad, and to illustrate the stipulation of secrecy we are told that one form under which medicine was venerated was that of a statue, now sometimes seen under the designation of "Silence—an erect figure with the index finger extended over the closed lips. That the confidence reposed in physicians keeping their trusts is not misplaced, has been repeatedly proven. Notably after one of the bloody contests between the citizens and soldiery of Paris, during the reign of Louis Phillipe, when the Chief of Police and the Magistrates endeavored to force the surgeons to divulge the names of the wounded they were called upon to aid, but the medical corps with one accord indignantly denied and resisted successfully this unwarranted assumption of authority.

Boiulland defines a physician to be an honest man, instructed in the healing art. In all history we find his name honorably mentioned, not only in the line of his profession, but in all other public affairs. One of the twelve familiar friends of the Prince of Peace was Luke, the beloved physician, and in these Centennial days it may be well to remember that Joseph Warren and Benjamin Rush stand out as prominently as any other men in the time of the "days that tried men's souls." I have thought the story of the life of Elisha Kent Kane might almost be taken as a typical one of the physicians of this century. Certainly not free from faults, yet the more you study him, the more remarkable does he seem. His intense application in all the deaths of his calling, his energy under the most discouraging obstacles, and his determination to "die in the harness," mark him as a doctor. Feeble, undersized, and the victim of incurable cardiac disease, and unable from that cause to sleep, for weeks at a time, in a reclining posture. He slept in a chair, yet he performed his duty well and faithfully every day, with the feeling that every time he closed his eyes in sleep the chances were against his ever opening them in this world. Brave, generous and charitable, he was tried under the varied dangers of the ocean voyager, and as the explorer of hitherto insurmountable mountain tops, fighting guerillas in Mexico, and protecting the lives of prisoners at the risk of his own. Making important discoveries in physiology, and going as surgeon with one Arctic exploration, and commander of another. He succeeded where other men had failed, and forced from nature the sight of an ice bounded "open polar sea," and returned to close his eyes, while the world looked on in sorrow, amid the fruits and flowers, the statues and fountains of the Capital of the "Gem of the Antilles." It is the opinion of some that less respect is paid now than formerly to the medical profession, but I think differently, and ask you to note the pride the Germans take in speaking of their medical men, Leibig, Nussbaum, Virchow or Rockitauský, and the long

line of popular French and English medical celebrities. And not longer than a year since, the great popular demonstration in Louisville in honor of the Philadelphia surgeon. Dickens seems to have had a hearty liking for the doctors, and invests even Dr. Haggage, "a ghastly medical scare-crow," with the decorum and popular regard for his calling, when professionally engaged, in spite of debt, dirt and drink, while he smites the legal fraternity hip and thigh as if "conamore." This has been said to be an "iconoclastic age," and the general breaking of images. I can not think the medical has suffered more than other learned professions.

A physician said to me not long since, is it not mortifying to find that in disease, where the people suppose the doctor can speak as if "Ex-Cathedra," and be sustained in all points by his brethren, that no two recommend exactly the same regimen or drugs and even the most diverse plans of treatment are rigorously insisted upon by their propounders; ought it not, said he, to cause us to blush with shame, and the people to lose all confidence in our skill and knowledge. I confess at first sight it seemed a good argument, but when I remember that theologians, all having access to the same sources of knowledge, agree still less in the details of their doctrines, and that in the Law, which is said to be "the perfection of human reason," and which of all things a man may be said to possess the most intuitive knowledge; learned Judges after the most exhaustive study and analysis of every circumstance connected with the cause, arrive at opposite conclusions; that three men in exactly similar situations can not witness a given occurrence and afterwards describe it alike in all the details; the difference in the treatment of disease by physicians, when so little is really capable of demonstration, and where the result depends so largely on unknown and changeable counter forces, should it not rather be ascribed to an inherent defect or constitution of the race, than as a characteristic of the profession? If it is true that the doctor is not so highly honored as in by-gone ages, there is none so much to blame as the profession itself. Our calling is not like trafficking on any commodity. It is not a trade. There is something in the learned, liberal, ancient and honorable profession of medicine which is above the idea of bargain and sale, which professes to live for an idea, which looks beyond the mere local, present and personal results of a case in practice, but regards every triumph only as a contribution to the storehouse of knowledge and experience from which all may draw at pleasure.

Many possessed of respectable talents apparently can form no adequate conception of the true dignity of their calling, but use it simply to gain a portion of doubtful popular applause, and by a species of charlatanism increase their income. Everything is made subservient to their "cursed thirst for gold," and if destroying the reputation of a reputable practitioner will add to their receipts from an ignorant class, no innuendo, falsehood or cowardly stab in the back, is spared to accomplish it. I think this is the center

around which all the "isms" and "pathics" of the day revolve, and I doubt not some of you have more than once been asked why you did not, and advised you to take up the practice of some "pathy" because "there's millions in it!" never seeming to realize the insult conveyed and implied both to yourself and your calling. These are the days when the people, with few exceptions, fall prostrate in adoration of the "rag baby," and the torn and filthy "promises to pay" are expected to purchase anything from the priceless heritage of a good name and professional honor down to a contract, or a license to steal as a post trader, and our profession has scarcely escaped the universal blight. Eternal vigilance is the price of honor and respect, as well as liberty, and the profession must maintain her purity by visiting all the pains and penalties possible against offenders, or suffer the bitter punishment of being "degraded to the ranks" of those miserable time servers and tuft hunters who are laboring so diligently to cause her fall. It is the mission of our profession to live worthy of it, and I believe there are thousands of the obscure who would not exchange their well earned reputation for skill and professional honor for the millions of Astor or Vanderbilt, and I consider the honor rightfully accruing to the New Orleans surgeon, for the first successful ligation of the innominate artery to outweigh any military renown or the glory of being the Chief Executive of the nation. Certainly that man will be the happiest, greatest, and wealthiest, who, when he shall exchange this world for a residence in that undiscovered country, shall live embalmed in the memory of those who themselves are worthy, and have known his integrity. He never decried the use of quinine or calomel in order to coincide with the preconceived notions of some boorish ignoramus, whose garb and countenance are to the observing eye a sufficient mark of his intelligence and his contempt for all "*larnin'*." He never recommended at certain places the sovereign virtues of some "yarb" tea known only to himself, as an accelerator of parturition, and lifted up his voice and hands in holy horror at the thought of any instrumental aid. He never for a moment pandered to the vulgar prejudice or ignorant presumptions of the "*Oi Polloi*," but did his utmost to relieve suffering, regardless of consequences, at the moment, knowing that the iron heel of time, destroying all that is not good, would vindicate him and his work. The true physician gleans from all fields, and Oliver Wendel Holmes, with his accustomed accuracy and beauty of expression says, "that medicine, sometimes imperitantly—often ignorantly—often carelessly called, "Allopathy, appropriates everything, from every source that can be of the slightest use to any body who is ailing in any way, or likely to be ailing from any cause. It learned from a monk how to use anti-mony; from a Jesuit how to cure agues; from a friar how to cut for stone; from a soldier how to treat the gout; from a sailor how to keep off scurvey; from a postmaster how to sound the enstachian tube; from a dairy maid how to prevent small pox; from an old

market woman how to catch the itch insect. It borrowed acupuncture and moxa from the Japanese heathen, and was taught the use of lobelia by the American savage;" to which I may add the discovery of the sedative and febrifuge powers of the gelseminum sempervireus by the stupidity or malice of a Mississippi negro. The profession of our day, taken as a class, are not "the degenerate sons of noble sires." They are actuated by the same philanthropic spirit which led Vesalius, Harvey, or Jenner, in the search for knowledge. Nevertheless the "faculty" is taunted by the thoughtless or malicious for all the crimes or misdeeds committed by any scoundrel who chooses to assume the title of Doctor, and is patronized by the humbug-loving public, who, like the people mentioned in holy writ, are continually seeking to relate or hear some new thing. In the ranks of the clergy there are wolves in sheep's clothing; in the law practice court sharks and shysters exist in spite of all efforts to abate the plague. Is it any wonder, then, that beings in the likeness of men are found willing to "steal the livery of heaven to serve the devil in," and acquire a certain knowledge of medicine that they may be the better able to pander to the passions and vices of the race, and the causes of their existence should be credited to where it properly belongs. The doctor bears a relation to his fellow man unlike that of any other class. He sees vice in a physical as well as a moral aspect, and knows that the cure is not possible, save only in changing the conditions of social life. He is almost debarred the pleasures of society, and many of the relaxations or amusements so frequently enjoyed by others, and his hours are passed in the shadowy apartments of the sick. He early becomes acquainted with our abyss of iniquity, to which the confessor is forever a stranger. He sees how often the iron laws of nature exact a penance more severe than any imposed by the priests; and he also learns a charity toward sin, similar in kind to that of the "Man of Sorrow," for he recognizes in the wayward instinct and the violent deed the results of an impulse innate or acquired, transcending the mastery of the will. He stands at the portals of humanity, and is the first to welcome the stranger to this inhospitable world, with a grasp "warm and cordial as the hand of a brother in a foreign land," and when the hour inevitable has arrived he is the one who replies to our "morituri salutaris," "Hail! and farewell, O, voyager! The winds are blowing out to sea, take up thy life and go." He goes from the palace of the merchant prince to the attic of abject poverty. He steps from the chamber of the pure bright eyed matron, surrounded by laughing children, to the tinsel adorned abode of vice, above whose portals he only sees traced in phantom characters the inscription which Dante has placed over the entrance to the Inferno, "Leave hope behind, all ye who enter here!" Protected from the stain of contact and honored for the sanctity of his calling, he brings relief and hope of better days to the hopeless, and comfort to the sorrow laden. He possesses powers delegated

to none others, and if necessary takes life that he may restore the mother to weeping friends. Like the druggist, "near the shady panthian," whom Dr. Quincy describes as disdaining to die, and as he believed to have "evanesced" or evaporated, so the good Doctor never dies. He changes form and feature, but he lives in the person of his successor, and

"His honors with increasing ages grow,
As streams roll down, increasing as they flow."

SMALL POX.

After the delivery of the above address and its enthusiastic reception.

Dr. Buckingham reported a strange and anomalous exenthematous disease, occurring in the person of an old citizen of this county, residing a few miles north of Springfield. After a short febrile stage, the skin became overspread with a dark red discoloration, which at first resembled a very severe form of measles, but finally assumed a still darker and almost black hue. *There were no papule, or pustules*, nor any other form of eruption characteristic of variola; nor would any one have taken it for this last named disease had it not been for what afterward occurred in connection with it. The man died in a few days from the first attack, and quite a number of persons who had been in attendance during his sickness were taken down with unequivocal symptoms of small-pox, one or two of whom had died. Dr. B. commented somewhat at length upon these cases, and stated that in the course of his recent researches in medical literature upon the subject, he had been examining Ziemsen's great work—The Encyclopædia of Practical Medicine—and he there saw an exact description of just such cases as he had to-day reported. This eminent medical authority had termed the disease Malignant Variola, stating at the same time that it appeared in a thoroughly disguised or masked form at times, and that the affection *invariably proved fatal*. Dr. B. now regarded the case as varioloid in its worst character.

Dr. Hazzard remarked that notwithstanding all he had heard of late about these alleged cases of small-pox occurring this spring in and around the city, he had, as yet, not fully satisfied himself that the disease was really small-pox. He had heard no descriptions, either of Dr. Buckingham's case, nor of those diseases resulting from it by way of contagion, that accorded at all with our standard conceptions of variola. If nearly all or quite all of the pathognomonic signs and symptoms of a certain disease be absent in a case, why give it the name of that certain disease? Why not call it something else as well?

Dr. Owen had a large experience with variola, and he claimed that pustules were not absolutely essential in small-pox. In some few instances the varioloid eruption, either from suppression, or

from some other cause, failed to make its appearance, and occasionally the skin, instead of being covered with distinct papulæ and pustules, presented a uniformly elevated character, as if consisting of a reddening and thickening of the skin. Instead of separate conical elevations, we would find a confluent form, with scarcely any depressions between them.

Dr. Pollock called attention to the maculated appearance of the skin just previous to the irruption in small-pox. The violence of the stage of invasion being so great in *Dr. Buckingham's* case, as to prove fatal to the patient before he had time to break out in papulæ, was the only reason why he did not present the more usual form and clinical history of variola. Had the patient been able to survive the terrible onset of the disease, the papulæ and pustules would undoubtedly have made their appearance.

Dr. Bancwell was not yet fully satisfied with the descriptions which had here been given of variola, so called. He did not believe that a single unequivocal case of small-pox had occurred within the limits of Clark county during the present season. He had seen none of the late alleged cases of the disease, and was, therefore, less competent to judge of their true character, but certainly there was but little resemblance of variola. He thought there must have been some misapprehension some where as to the correct pathological character of the present strange visitation.

Dr. Rodgers had been called in consultation to see the case reported by *Dr. Buckingham*. He had regarded it at first as malignant measles, and had remained under that impression until seeing the effects which have certainly grown out of it. So far as appearance was concerned, the case was an exceedingly obscure one. There was an entire absence of all the irruptive features usually regarded as necessary in small-pox. There had evidently been no supperation in any form, and he felt assured now in saying that the diagnosis as first made out was all that the case warranted at any time before its fatal termination. He felt equally well assured, also, that several cases of undoubted small-pox, or at least varioloid disease, had originated from exposure to the case under consideration.

Dr. Kennedy had called to see a *Mr. Haus*, living in the same neighborhood with *Dr. Buckingham's* patient, on the eighth day after *Mr. Grube's* funeral, and found him laboring under strong febrile symptoms, followed by no cutaneous irruption of any kind characteristic of variola; but soon afterward *Mrs. Haus* was taken down with the same febrile prodromata, followed in due time with papular irruption, and other unmistakable evidences of small-pox. So, also, in the case of one of *Mr. Haus's* children.

Dr. Reeves called attention to the fact that variola was modified and limited not only by vaccination, but that it was also modified, limited and sometimes greatly aggravated by other circumstances, more especially by the different conditions of the atmosphere. We find, however, a peculiar state of the atmosphere, such as would

give the small pox that strange appearance which it seems to have assumed in this neighborhood of late. The extraordinary prevalence of measles would, of itself have this effect. The whole air seemed to be impregnated with the virus of measles, and that fact alone would generate exactly such a case of variola as the one reported by Dr. Buckingham. He believed that we had veritable small pox among us, and that every one should conduct himself accordingly. Nothing but a judicious system of isolation and vaccination would prevent its spread, and this prophylactic course would certainly succeed.

Dr. Kay remarked that his experience with small pox had taught him to expect occasionally to meet with cases differing very widely in their clinical history from the typical case described in our standard work. Some one or two of the most important features of the disease would be absent, and the affection so far modified and disguised as to make it unrecognizable, were the patient not to be in the same room with other small pox cases, or otherwise in close proximity to them. Some persons seem to think that because the irruption remains out upon the skin for an unusually great length of time, no apprehension need be entertained of its varioloid character. Even those who are willing to concede that the case just reported was one of variola, notwithstanding the absence of all varioloid irruption, are at the same time unwilling to concede that a certain other case, all covered over with an irruption answering the description of small pox is really such, because the course of development of the papule and pustules had been prolonged a few days beyond the usual time. The failure to recognize these wide variations from the accustomed set form of the disease was occasionally attended with danger. If a first case of varioloid disease occurring in a community be of this irregular type a mistaken diagnosis in regard to it might be excusable.

After a continuance of the above discussion for nearly four hours, the Society then adjourned, to meet again on Thursday, May 18th, for the completion of important unfinished business.

PROCEEDINGS OF THE DELAWARE COUNTY MEDICAL ASSOCIATION.

The Association met at Delaware, O., April 11, 1876, at 10 A. M. Dr. Welsh presiding in the chair.

After reading the minutes, Dr. S. P. Cummins read a paper on erysipelas. Spoke of cold acting as a direct sedative, reducing the vital powers, giving rise to certain constitutional affections among which was erysipelas; throat wounds and abrasions of the cutaneous surface acted as exciting causes, and some unknown condition of the atmosphere, at times, caused it to prevail epidemically. He thinks he is not justified in considering it contagious, and that sanitary measures have but little influence over it. Also, believes there is a poisoned condition of the blood.

DISCUSSIONS.

Dr. Hyatt believes it a disease of the blood, and the erythema a local manifestation of the general disorder, and that exposed parts of the body are the first attacked, which, as a rule, should be protected from the atmosphere. For this purpose he recommends oiled silk, and when phlegmonous incisions ought to be made.

Dr. McCann approves the use of oiled silk, also tincture of iron and iodine locally. He would make a border of nitrate of silver or iodine across the path of the advancing inflammation. He relates a case of phlegmonous erysipelas of the axilla extending to the hip, used quinine, iron and opium in this case. He does not know of any remedy to check the progress of this disease.

Dr. Potter—Can there be such a disease as erysipelas without a deranged condition of the blood. Thinks not, would exclude the air and use iodine caustics locally.

Dr. McIntire—You may conduct a vessel through the storm, but can not stop the storm. Erysipelas is a blood poisoning, does not think much of counter irritants, but treats it as a burn, gives sedatives with anodynes, and topically, oil lini and lime water, or elm water, or glycerine, but our main object is to destroy the virus. Would give tincture ferri in heroic doses, a teaspoonful at once, does not think much of potass, or salts, or cream of tartar.

Dr. Williams believes the disease atmospheric and occurs epidemically, does not think much of local applications, has used elm bark, it is a matter of doubt whether any topical application proves serviceable or fulfills any expected indication. It runs its course like scarlet fever; would use tonics, also chlorate of potash, and does not think nitrate of silver locally of much utility in arresting the extension on the surface.

Dr. Constant—There are frequently cases characterized by superficial redness, when it is not erysipelas. True erysipelas is a constitutional disorder, and requires constitutional treatment. Would use mild emolient applications topically, as elm bark, and would not attempt to head off the eruption by caustics. It runs a certain course.

Dr. Fowler looks upon the disease as an atmospheric trouble, advocates exclusion of the atmosphere, but would not use any irritants locally.

Dr. Welsh believes it not contagious, and relates numerous cases under his personal observation of its being a non-contagious affection. It is a constitutional disease and would use tincture of iron both externally and internally.

It was also stated that erysipelas was inoculable, that the serous fluid of the vesicles and subcutaneous cellular tissue seem to be especially infectious by direct transfer. That we can not look upon it as one of the true exanthems, as one attack increases the predisposition. In this it is like pneumonia. That it occurs at times as a stationary epidemic, and that a majority of cases can probably be traced to a traumatic origin.

Dr. S. C. Dumm then read a paper on neuralgia and its treatment hypodermically; when administering morphine in this way he would use but one-twelfth of a grain. The frequency of neuralgia last autumn in his practice, was largely due to miasma, producing a morbid condition of the blood, giving rise to a functional derangement of the nervous system. Under these conditions quinine was given with decided effect. Not hypodermically, however.

Dr. Hyatt approves and has practiced hypodermic medication, and thinks it generally safe, less complicated, more rapid, and its action not so variable in proportion to the amount, as when taken by the mouth.

Dr. McIntire—To cure morbid wakefulness in delirium tremens, referred to in the paper, would give bromide of potassium and valerinate of ammonia, alternated with lupulin, and for sustaining treatment, eggs, milk and sugar, but no whisky or injecting morphine under the cuticle to meet the indication, would in addition tell the patient, as a warning, and perhaps prophylaxis that the *man* with the *poker* was after *him*, for if he has another attack he will die.

Dr. Little is a believer in hypodermic medication and referred to *Dr. Ruppener* of New York, as an authority on this subject. He has frequently introduced morphine subcutaneously. He would always make his own solutions and at the time he used them, old solutions decomposed, it makes but little difference whether the morphine was introduced at the section of the pain or some other point, that its effects are general not local. Once used morphine hypodermically on a lady, while suffering from acute pain, which did not seem to have the desired effect. Chloroform inhalation was then used, anæsthesia was rapid, so much so, that the patient was soon bordering on that uncertain state called syncope. As she lay unconscious, he quickly raised her up, then down again, then up, being wide awake to danger, thoughts of asphyxied persons or suspended animation, sudden deaths and Marshall Hall occurred to him about the same time, by at once applying this authorities "ready method," with a mixed method of his own, adapted to indications, he was not long in restoring his patient to consciousness, but resolved in future, if anæsthesia from chloroform following the introduction of morphine hypodermically was always so decided in its action, he wanted no more of it in his practice.

Dr. Hendriksen then spoke of the different forms of this affection and its treatment both locally and constitutionally.

Quite a variety of business of a local character was transacted after which the Association adjourned to meet the second Tuesday in May next.

Correspondence.

How's This?

CINCINNATI May 2nd, 1876.

TO THE EDITOR OF THE LANCET:

Under the caption of "Medical Fashions," an article appears in this month's number of the "Atlantic Monthly." On first reading this satire on the medical profession, one is struck by the seeming erudition of the author, who quotes Pliny, Paracelsus, Galen, Hippocrates and numerous other ancient authors in a free, easy, off hand manner, as though he were familiar with all their writings.

There are, at points in the article, evidence of a quaint and brilliant humor cropping out, which would at once convince the most careless reader, that the writer of "Medical Fashions," is a man of *genius*. "Original ideas," quotes the careless peruser. "Not original," but *cribbed* bodily, from "Burton's Anatomy of Melancholy," answers the literary Nestor, at our elbow. "How so?" asks the careless reader, his face lighting up with surprise: "Can it be possible that the Atlantic Monthly, published at the American Athens (Boston,) would permit anything but an original contribution to its columns?" Nestor, laughs merrily: "As clear a case of plagiarism as was ever perpetrated," he replies. "Not an idea in the article is original with its writer. The only *original* matter in Medical Fashions, is the *trash* interlined between the sayings of witty old Burton." "Astonishing!" gasps the careless reader. "Listen!" says Nestor, "I have only time to mention a few points of the many, that Mr. Edward Spencer, offers to the public as his own."

Atlantic. p. 552.

"When we see the doctors of all ages squabbling about their systems and their practices." etc., etc.

Atlantic, p. 552.

"A Society of individuals, each of whom immeasurably obey his own individual law, and developes largely his own personal ideosyncrasia." etc.

Their potions, pills, magistrals precepts." etc., etc.

Burton, vol. II, p. 365.

"Almost every man hath his own mixtures, compositions, receipts, magistrals precepts." etc., etc.

Burton, vol. II, p. 365.

"Each man must correct and alter to show his skill, every opinionative fellow must maintain his own paradox," etc.

Atlantic, p. 553.

"The case stands precisely where it stood when Pliny wrote. * 1.

(Foot note.) * 1. *Fraudes hominum et ingeniorum capturae, officinas invenire istas, in quibus sua cuique venalis promittitur vita,*" etc, etc.

Atlantic, p. 555.

"There is hardly a surgeon of the present day, who would venture to resort to trepanning, in order to set the skull free from the fuliginous vapours that might be oppressing to the brain, as certain disciples of Galen did."

Atlantic, p. 556.

"Thus the stone called *chelidonium*, said to be found in the belly of the swallow, cured lunatics and made mad men amiable and merry."

"Enough! Enough!" cries the careless reader. "Is the article then only a mosaic of Burtonian sayings?" Nestor, laughs again, "Most of it written over two hundred years ago," he replies: "Here: Take my Widdletons editions of Burton, and read the article on "Medicinal Physic," then you will see where Mr. Edward Spencer procures the material for the "Atlantic Monthly."

"It strikes me," remarks the careless reader, "that Spencer's article is an uncalled for attack on scientific medicine, eh!"

"Just so!" answers Nestor, "But we must write him down an ass;" he evidently knows nothing of physic, and has even less personal knowledge of the medical classics." "But he has studied Burton closely," persists the careless reader. "Yes *very closely*," responds Nestor, dryly.

T. C. M.

Burton, vol. II, p. 363.

Pliny taxeth all compound medicines, * 3.

(Foot note.) * 3. *Fraudes hominum et ingeniorum capturae, officinas invenire istas, in quibus sua cuique venalis promittitur vita,*" etc. etc.

Burton, II, p. 391.

"'Tis not amiss to bore the skull with an instrument to let out the fuliginous vapours."

"Trepanno etiam cranii densitas imminni poterit, ut vaporibus fuliginosis exitus pateat."

Sallust Salvianus *de re medic*, lib. 2, cap. 1st.

Burton, II, p. 358.

"In the belly of the swallow there is a stone found, called *chelidonium*," etc., will cure lunatics and madmen and make them amiable and merry."

Clinics.

Prof. J. H. Pooley's Clinics, at Starling Medical College, Columbus, O. Reported by M'Kendree Discroll.

Case 1st. Mrs. L, æt. 38, born in the United States. On the 4th ult. this patient was brought before the class, her trouble then being diagnosticated tertiary syphilitic ulceration of the soft palate,

the ulceration extending over quite an extensive area. The patient entered the "St. F. Hospital," a few days previous to her first appearance at the amphitheatre under the impression that she was suffering from the ravages of cancer. On her first appearance the following history was given: Have been married twice, no children by first husband; was a widow seven years before marrying second husband, who is still living, and by whom have one child. Have had present trouble eight years; throat became sore, and there was a little matter discharged therefrom; have had constant pain in throat; it is now worse than it has ever been. Have suffered most pain at night; have had a pretty constant headache which has been mostly confined to forehead. Have had eruptions no where else on my person; have had rheumatism and swelling of feet and legs with pain attendant. The patient is pale, emaciated, and decidedly, anæmic; there is, however, no real cachectic look apparent. The pulse is eighty, and weak, the tongue is more than naturally red, swollen, and the papillæ are large; teeth marks are noticable upon the organ. The ulceration in throat has destroyed almost all the soft parts, as uvula, tonsils, etc, with soft palate; the ulceration has extended to the nares, and the nasal septum is nearly perforated. The cervical glands are not much swollen, Prof. P. remarks. if the diagnosis is not rendered more positive in the course of a few days, I may nip off a part of the uecer, and, after an examination of the same, I can with comparative ease decide. The following go to support the diagnosis of tertiary syphilis, to-wit: 1st. The long duration (8 yrs,) and comparatively superficial ulceration. 2nd. Involvement of nasal passages. 3rd. Worst pain at night. 4th. Frontal headache, and 5th. Having been twice married, the latter husband, according to private information, being a rake who has tampered with whisky, and done a great many things he "ought not to have done."

Patient is taking Iod. Pot. grs x, three times per day; Prof. says this can be increased, if necessary, to zii , or ziii . Is using carbolic acid wash. The assistant is ordered to add to her medicine Mur. Tr. Iron, gtt. xx, to strengthen her.

On the day of this clinic Mrs. L. says she "feels better every way," has less pain in throat, feels stronger, appetite is better, examination proves the ulceration to be improving somewhat; it is drying up. Prof. remarks that Iod. Pot. has been given, and that the marked improvement under its use unquestionably proves the correctness of diagnosis; he says that Iod. Pot. is regarded by many as a specific in tertiary and partly so in secondary, and that mercury is regarded as a specific in primary and partly so in secondary syphilis. In the further support of the diagnosis, it is said that, on the 10th, ult, a vaginal examination was made, and two facts brought to light.

1st. An unmistakable syphilitic scar was seen upon the labium majorum of left side, and 2nd, there was no os uteri, or cervix uteri; in the region of Douglas' cul-de-sac, the uterus was bound to vaginal

wall by cicatricial bands of syphilitic ulceration. The treatment is to be continued.

Case 2nd. Miss. E. T., æt. 19., born in the United States.

Six years ago patient was afflicted with toothache of agonizing character; the pain was borne for some time, poulticing being practiced. The tooth was a superior molar of the left side. Subsequent to the poulticing, an abscess formed; a physician lanced the same through the cheek, and quite a large flow of pus occurred. The intensity of pain, etc., soon subsided, and the offending tooth was soon thereafter extracted; it was badly decayed. Patient did not know whether a bag of matter adhered to the fang of the tooth or not. As might be expected, the resulting scar was embarrassingly disfiguring; especially is this the case when the patient is so fortunate as to be as handsome and prepossessing as Miss T. otherwise is. The cicatrix of the disfiguration is situated on the edge of the malar bone which looks downwards, or about at the junction of the maxillary process of malor, and malor process of sup. maxillary bones, and is bound down upon the bones with firm cicatricial bands which draw the tissues inwards, and form a cupshaped cavity nearly half inch in depth. After a protracted discussion of alveolar abscesses, their causes, treatment, etc., Prof. P. commenced operation with the aim of modifying the defacement. Having planned the method of operation previously, the endeavor to sever the cicatricial bands which bind the scar to the bone is begun. The cutting instrument, a scalpel, is introduced through the mouth, and, notwithstanding the apparent impracticability of accomplishing any thing in this way, and the delicacy of manipulation required in order not to pass the knife through the cheek, which at one time during the operation seemed unavoidable, the bands are, in the proper manner, successfully severed, and almost instantaneous amelioration is met. Cold water compresses are ordered to be applied, and it is directed that the cicatrix be moved, roughly if necessary, every day to prevent attachment to the bone as before. Prof. remarked that, at some future date, he might dissect out the old cicatrix, bring together the edges, and neatly fasten with extremely delicate sutures, thus leaving an ordinary, straight scar.

Case 4th. Michael M., æt. 40., born in Ireland. The initiatory manifestation of this patients trouble occurred when he was 10 years old; then the right thigh became swollen, matter approached the surface externally and was discharged; a few slivers of bone, at this time, were taken away with other substance spontaneously making exit. After a time the discharge ceased, and the opening healed over, leaving a scar. Eight years after, patient had a discharge of similar kind from inside of left thigh; patient thought no bone came away this time, when the discharge lasted twenty months.

Patient was in comparatively happy condition after this, until four years ago, when another ordeal was inaugurated. The last attack was ushered in by a quick lancinating pain in the left hip while sitting in a buggy. The left thigh inflamed, and matter was

discharged from external lateral surface of the thigh; this healed up tolerably well after a long seige; but on last Saturday, a week, a discharge of matter, from the external lateral surface of the left thigh, was begun, which occasioned his advent in the hospital.

At this date there is an opening on the outside of the thigh leading into a channel or sinus. Upon inserting a probe it is found that, instead of passing vertically, and down to the bone, it passes upwards towards the pelvis, not impinging upon the femur.

Prof. P. remarks it may be that the next time the probe is passed it may go down directly to the bone; other passings are made, but the probe invariably inclines toward the pelvis without touching the femur at any point whatever.

The interest increases, and Prof. makes a still more searching inquiry: patient states that he has had discharges of matter from the rectum also.

Taking into consideration this, as well as the fact that the patient has previously experienced sharp pain in hip and tenderness of perineum. Prof. says the pelvic bones are probably diseased, the matter has probably burrowed to the surface of the thigh, traversing considerable fascia.

Case 6th. Mrs. J., æt. 44, born in United States.

During the summer past this patient was attacked with erysipelas which located itself upon right foot, necessitating, after a little while, amputation of a portion of the foot. The amputation was performed by disarticulation of the tarso-metatarsal joints. The flaps of the stumps sloughed off, and at this date, the stump prevents the condition of an indolent ulcer. The patient was before the class on November 27th, 1875, for the first time; the healing process then was extremely bad, and it was evident that it would not go on to any desirable extent. The Professor remarked at the time that the method of attempting a cure, in this case, would be "skin grafting," which had been successfully used by him on some occasions; in one, a railroad injury, in which almost the entire anterior surface of a lower limb suffered a loss of integument, and in which every portion was disposed to heal except a small patch, the "grafting" was used to great advantage; in another, a case of varicose ulcer of apparently healthy intent, so to speak, it proved very valuable. Not expecting any very remarkable results in the case, first, because it was situated at the furthest possible distance from the heart, and second, because it was not of a healthy character, yet saying that it might do some good, and he would use it "for what it was worth," the professor proceeded forthwith. Four little grooves or incisions were made in the ulcer, and four little pieces of skin, taken from the patient herself, and from students, were grafted therein; over these was applied some oiled paper, and to retain the latter, in proper position, a bandage was used. The next appearance of the patient is on December 4th, 1875. The "grafts" have died, but, happily, the ulcer is slightly better; its whitish appearance is somewhat diminished, but no marked improvement is perceivable.

Three more pieces of skin are grafted, the Prof. securing the same separately with forceps and curved scissors from the arms of those enthusiastically devoted to science, and inserting them as secured. Instead of the oiled paper dressing now, the simple cerate cloth is used.

It is ordered that the ulcer be not washed off with water, for this will destroy the grafts, but all pus which accumulates is to be mopped off with extreme caution.

The next appearance is on date of this clinic. At this time, to an inexperienced observer, there is no improvement whatever, but to the eye of the experienced there is the least appreciable favorable advancement. Prof. thinks the ulcer slightly less in diameter, but can not say so with any degree of certainty. The case is one which will require time for its cure and the exercise of untiring patience. Considering the fact that the patient is anæmic and extremely feeble, it is concluded that the best plan will be to apply the common cerate dressing for a time, meanwhile to administer tonics and use supporting measures, and to prepare methods of cure suitable to the case.

Prior to admission of any patients, Prof. P. made some statements relative to patient. Mr. J. S. who was, and had been under treatment for urethral stricture, and who made an appearance pretty early in the course.

One week ago No. 11 elastic catheter was introduced after protracted endeavor, and an hour, or thereabouts, afterward, Mr. J. was attacked with a chill which was followed by quite a fever; the chill was of one hours duration and of tolerably depressing character; quinine was administered with benefit. It was a question then whether the chill resulted from the use of the catheter, or from the malarial influence prevalent in the city at that time; again, however, the catheter was introduced, this time about the 15th ult. and the same symptoms followed. These febrile attacks in Mr. J's case were not dangerous, but interesting, inasmuch as like attacks in particular cases sometimes prove fatal.

In Mr. J's case there probably was irritation of the reflex nerves, which originated in the passing of the instrument. I would advise you to be very careful in the introduction, into the bladder, of any instrument whatever, and especially careful in the first introduction.

Case 2d. Mrs. L——, æt 38, born in United States. This patient is improving greatly; the syphilitic ulceration is well advanced towards a cure, *i. e.*, a cessation of the destructive process, and the drying up of the ulcerated surface; of course there is no restoration of parts. There is absence of fetid discharge. Whereas, at first she could swallow only small doses of Iod. Pot., now she takes large doses with comparative facility. The tonic, Mur. Tr. Iron, grt. xx, is to be continued; to her dose of Iod. Pot., grs. xxv., is to be added grs. v. every time her bottle is filled.

Case 8th. Michael M., æt. 40, born in Ireland.

By reason of inability of patient to present himself at amphitheatre, students are conducted to his bedside in "St. F. Hospital."

Since last clinic day patient has had a chill; this occurred on the 12th ult. He has had fever all the past week occasioned by fresh suppuration which probably was induced on 11th ult., by means of investigation then used to determine the conditions of the case; subsequent to examination for the first time, great pain in hip has been experienced. Professor remarks that the urine has not as yet been minutely examined.

The sinus with termination on the left lateral surface of left leg is now probed with elastic bougies well oiled; they invariably move in the direction of the pelvis, and the entire length of the bougie, ten or twelve inches, is taken up, the same not bending upon itself. The finger is introduced into the rectum to ascertain if it may recognize the end of the bougie through the walls of the rectum, but does not; Professor says, however, that the indurated walls of a sinus are plainly felt.

Simm's speculum is now used, and a closed opening or cicatrix is noticeable upon the left lateral wall of the rectum. The evidence is conclusive that, at one time, there has been a fistulous communication with the rectum. Professor says "there may even now be a valvular opening through the wall, but if so, it is so minute as not to be demonstrable."

In view of the continuous distress of patient, as well as the fact that future opportunities for further examination will be afforded the case is passed for the day, Professor directs assistants to have a poultice applied to the patient's thigh, injection of warm water given, and quinine, in doses of grains v., administered.

Case 1st. Mr. R. M., æt. 50, born in Ireland

Chronic trachoma with considerable conjunctivitis.

"Trachoma," or granulated eye lids, is a condition most frequently occurring among the poor, although not confined to these by any means, and attention is not called, as a general thing, until it has arrived at an advanced stage. It is to be distinguished from mere enlargement of the pappillæ, with which it is often confounded; in "trachoma" a new growth or formation is generated in conjunction with enlarged pappillæ and inflammation of the conjunctival membrane.

There are two kinds, *i. e.*, acute and chronic trachoma. As to first, it is seldom we see a typical case; acute attacks sometimes occur in chronic cases.

In the acute variety, the inflammation, or conjunctivitis, runs high, the lids become puffy, red and hot, and constitutional disturbance sometimes occurs.

Contrary to what an inexperienced person might suppose, it is far more agreeable to have in charge cases of the acute type, for they are more amenable to treatment. A great danger to be averted in cases of this kind, is sloughing of the cornea; the cause

of this is readily perceived. The cornea, as is well known, has comparatively little vascularity, and when pressed by swollen tissues, what vessels being present being obstructed and even occluded it naturally sloughs. What we may do in way of treatment must be done quickly! About as good a measure as we can take is the renewed application every three to five minutes, of pieces of linen from a block of ice. Is it advisable to use irritants or caustics now? I should say no; in cases of great discharge of fluid from the eye, they may do good, but as a general thing they are now contraindicated. In softening of cornea, instillations of atropine are beneficial, they allay pain. In injury of the cornea as above mentioned, the pain is disproportionate, to the extent, in depth, of the corneal substance implicated. This is accounted for by the fact that when a superficial ulcer results, the delicate fibrillæ are exposed to the atmosphere. Atropine is also good to prepare the eye ball for perforation, when it is inevitable, for it dilates the part and the result is not disastrous. The second or chronic variety is attended by a low grade of inflammation, and is more difficult to cure. The complications of this are many. Some are involvement of cornea, softening and destruction of tarsal cartilages entropion, etc. Symblepharon another. These all require individual treatment. There is an idea entertained at present that these conditions of the eye, acute and chronic trachoma, etc., depend upon a particular constitutional condition denominated the "strumous diathesis; I have not much faith in any such conditions; I am confident however that particular employments and occupations predispose to certain eye diseases, but, excepting the usual difference in the susceptibility of different persons to attacks of disease, I think about the same proclivities or tendencies exist. Our object in the treatment is to bring about sufficient vascularity to produce absorption of granules; and our main reliance is upon local application. Sulphate of copper, which in these cases is "par excellence," and other remedies of like property are used.

The persistent application of this remedy is necessary to a cure, the frequency of application varying with intensity from every day to every other, or every two or three days. There is no rule as to length of the treatment; perfect cleanliness must continuously be enjoined, and a certain degree of vascularity must be kept up while any granulations remain.

The complication entropion is only relieved by operation; of operations there are a variety; the one I use is "Knapp's modification." An elliptical piece of skin is cut out of external surface of eyelid, and the tarsal cartilage is grooved. The discharge from the eye in these cases is very irritative; the diptheritic eye may be produced by its introduction into an healthy one. Beneficial results are sometimes experienced by inoculation with such discharge, or of similar discharge—a case of blindness from opacity and nebulous condition of the cornea resembling ground glass, occasioned by protracted trachoma, cured by inoculation of pus

from the eye of a case of "ophthalmia neonatorum," was cited. For first few weeks (4 or 6), there was terrible inflammation, but four months subsequent to inoculation, eye sight returned to patient. Notwithstanding the occasional good, resulting from the above measure, I advise you never to use it other than as a "dernier resort."

Case 2d. Mr. S——, æt 75, born in Germany, ectropion and symblephoron not dependent upon trachoma, but upon continuous or chronic inflammation of the conjunctiva. Both conditions are typically shown. Ectropion is most common in old people who have long suffered with inflammation of the eyes; it consists of an eversion or turning out of the edges of the eyelids. Symblephoron exists when the conjunctiva is bound firmly to the eye-ball occasioning limitation of motion. Operative measures in this case will do no good; some astringent solution or mixture will be most beneficial, as nit. silver, grs. iii. to v. aquæ ʒj., etc., to allay what irritation may exist.

Prof. J. H. Pooley's 4th case of January 8th, 1876.—Michael M——, æt 40, born in Ireland. The Hospital assistant makes the statement this morning, that the patients urine has been examined, and albumen detected therein, but no casts have been found. Prof. urges the assistant to examine the patients urine again and again, "Hyaline or waxy casts may probably be discovered." The sinus of the left leg is closed up; or more properly, the opening is healed over, it is opened, and an ichorous discharge occurs.

Patient is now taking Carb. Iron and Tr. Cinchona. Mur. Tr. Iron in doses of gtts. xx., is ordered.

Editorial.

Action of the Michigan State Medical Society regarding Homeopathy in the Michigan University, at its meeting held in Ann Arbor May 10th, 11th, and 12th, 1876.

"On the Admission of New Members," the question arose concerning the admission of *University graduates of 1876*, which was finally referred by the *Association*, together with *all matters* pertaining to homeopathy in the University, to a committee composed of nine gentlemen, representing different portions of the State, as follows:

Dr. FOSTER PRATT, Kalamazoo, *Chairman*.

“ S. S. CUTTER, Coldwater.

“ J. H. JEROME, Saginaw City.

“ G. K. JOHNSON, Grand Rapids.

“ JAMES A. BROWN, Detroit.

“ H. B. BAKER, Lansing.

“ GORDON CHITTOCK, Jackson.

“ J. S. HAMILTON, Tecumseh.

“ J. ANDREWS, Paw Paw.

These gentlemen, after due deliberation, made the following report, Drs. Cutter and Hamilton objecting *only* to the last resolution:

REPORT OF THE COMMITTEE OF NINE.

To the Medical Society of the State of Michigan:

Your committee, to whom has been referred the various matters affecting the relations of the State society and the medical profession of the State to the medical department of the University, beg leave to report that they have given careful, even anxious, thought to the matter so referred, to the end that, if possible, a solution of existing difficulties may be proposed which, if adopted, shall damage no great interest, sacrifice no honor, nor compromise the dignity of medical science in our State.

The present position of the medical department of the University and our relations to it bristle, with difficulties—difficulties springing, on the one hand, from the legal relations of the school to the Legislature and to the Board of Regents, and, on the other hand, from the unwillingness of the profession to hold any parley or make any compromise with irregular medicine.

The controversy arises, as all know, from the establishment by the Legislature and the Board of Regents of a homeopathic medical department (so-called) in the University.

For the better understanding by our brethren in this and other States of the existing “situation,” your committee present the following succinct statement of the facts in the history of the movement which has resulted in this new (so-called) department of homeopathy.

Before stating these facts, however, it may be well to say that, by the constitution of our State the Board of Regents “*have the general supervision of the University, and the direction and control of all expenditures from the University interest fund.*” This University fund and the students’ fees, together,

constitute a fund absolutely under the control of the Regents; but, as the University has been expanded and is now managed, this fund is only about half what is required to defray the annual expenditures of the institution. For this additional amount the board are compelled to look to the annual appropriations of the State Legislature; and in making these appropriations, to meet the pressing wants of the school, the lawmakers has, from time to time, seen fit to couple its bounty with *conditions*, upon compliance with which, by the Board of Regents, the money could be drawn from the State treasury. In several instances, the Legislature has made use of its power of appropriating money to practically invade the constitutional function of the Regents, as the controlling power of the institution, and to dictate to them in matters not legally within its sphere.

Beginning in 1855, it passed an act providing for at least one professor of homeopathy in the University.

The Regents refusing to comply with this legislative requirement, the Supreme Court, in 1856, was asked, by a mandamus, to compel its observance. But the mandamus was refused by the court, for reasons, in this instance, not necessary to enumerate.

In 1867, another act was passed appropriating 1-20 of a mill on each dollar of the taxable property of the State, for the benefit of the University, *provided* the Regents would comply with the law of 1855 and establish one homeopathy professorship.

The Regents agreed to and did appoint *two* such professorships to be located at some point outside of Ann Arbor. But the auditor-general refused to pay the money appropriated on the ground that this was not a compliance with the act. The Regents now asked the Supreme Court, by mandamus, to compel the auditor to the payment of the appropriation. But the writ was refused, the court being equally divided in opinion.

In 1869 a mandamus was again asked of the court, by homeopathic interests, to compel the Regents to comply with the original act of 1855. The court being again equally divided, the request was again denied.

In 1873 the Legislature passed another act, in this instance without appropriation and without condition, providing for the establishment of two professorships of homeopathy by the Regents.

As before, the Regents refused to comply, denying the power of the Legislature to control them in their management of the University.

The usual effort, by mandamus, to compel the observance of the act was made, but this time before the Circuit Court of the county in which the University is situated. The court decided it had no jurisdiction and refused the prayer—after refusing an appeal for the reason that, having no jurisdiction of the case, it could take no action from which to appeal. But nothing daunted, and with a zeal worthy of a better cause, the petitioners again besought the Supreme Court, and were again refused, the court being again equally divided and unchanged in the opinion formerly expressed.

But, in April, 1875, an act was passed authorizing the Board of Regents to establish a new department of medicine in the University,—the homeopathic department—and made an annual appropriation of \$6,000 for the purpose of sustaining it.

On the 12th of May, 1875, the Regents established a Homeopathic Medical College at Ann Harbor; equipped the new college with two professors—one of practice and one of therapeutics; required five of the former professors—viz.: of anatomy, physiology, surgery, obstetrics, and chemistry—to supplement the deficiencies of the new department, and to become, with the two homeopathic professors, the teachers of registered homeopathic students, and with this requirement the professors named have complied.

To remove one difficulty in the execution of this plan, the former mode of granting and executing diplomas was radically changed in every department of the University; the diplomas of each department, instead of being granted and signed as formerly by the professors of the several departments, are now granted by the Board of Regents upon certificates of proficiency given to each student of a department by each professor of that department, and are signed "*only by the President and Secretary*" of the Regents.

Of the action of the medical faculty in accepting or acquiescing in these radical changes of their relations to the medical department, but little need be said. It has been a subject of much controversy—a controversy which it is now useless to open—and which, if opened, will not aid this society in reaching a just and proper conclusion in regard to its relations to the medical department and its work. It is enough to say that Dr. Sager, of the medical faculty, and for many years its Dean, has refused to approve or accept the amalgamation, and has resigned his position. All the other members of the faculty have remained—whether because they approved or acquiesced in the arrangement, it is not impor-

tant to inquire; it is but proper to state, however, that no evidence has been produced which shows that, as a faculty, they relinquished, in any degree, their opposition to the introduction of homeopathy into the institution, but, on the contrary, we have their personal assurances that, while the question was pending in the Legislature, they refused to make concessions, and when the act was passed and the Regents decided to incorporate the new department into the University, the situation was accepted by them as an "accomplished fact," and without approval or disapproval.

Having thus stated all the facts which seem to be pertinent to our inquiry, and which are needed to guide the action of this society, your committee beg leave to offer a few suggestions which grow naturally out of their investigations, and which seem to them to be important:

First—The expansion of the University by the creation of many departments not self-sustaining, creates a necessity for an annual appropriation by the Legislature for their support of about \$40,000.

Second—The Legislature or those controlling its action from time to time have taken advantage of this annual necessity to impose conditions not warranted by a true construction of their powers upon the Board of Regents.

Third—The wants of the University and of its several departments not self-sustaining have induced the Board of Regents to yield the long-mooted introduction of homeopathy into the University.

Fourth—The medical department of the institution has been the sacrifice offered to appease the Legislature, and to build up or maintain other departments.

Fifth—That State management of theological or medical schools will, in the nature of things, be disastrous to their welfare, if not actually destructive of their life.

Sixth—That it remains for the medical profession to provide for its own education, and, like theologians, to conduct its own schools and take care of its own interests.

In the matter of admitting as members of this society the medical graduating class of 1876, or members of it, your committee beg leave to say that inasmuch as all, or nearly all, were entered students in the medical department of the University before the establishment of the homeopathic department, and inasmuch, also, as no homeopathic students have been graduated this year, it is recommended that they be admitted members of this society on the usual conditions.

Your committee, in conclusion, beg leave to report the following resolutions:

Resolved, That we are not content with the existing situation of the Medical Department of the University, because in our opinion it is not calculated to maintain or advance, medicine as a science, nor is it consistent with the honor or interest of the profession.

Resolved, That a State under our form of government can not successfully teach either medicine or theology, and that the medical profession ought to be its own teacher and the guardian of its own honor.

Resolved, That we regard all legislative interference with the government of the University as unconstitutional, wrong in principle, and harmful in its results.

Resolved, That section 4 of the constitution of this State Society be amended so as to read as follows, viz.: "Section 4. The resident members should be elected by vote of a majority present at any regular meeting, their eligibility having previously been reported upon by the Committee on admission; *Provided*, That no person shall be admitted to membership who practices or professes to practice in accordance with any so-called 'party' or sectarian school of medicine, or who has recently graduated from a medical school whose professors teach or assist in teaching those who propose to graduate in or practice irregular medicine."

The submission of the report was followed by an animated debate.

The ayes and nays being called for, this report and the resolutions were adopted by a large majority—the fourth being an amendment to the By-Laws, was, under the rules, laid over until the next annual meeting.

We are glad of an opportunity to record the above action of the Michigan State Medical Society in regard to the introduction of homeopathy in the Michigan University. The resolutions adopted are eminently sound and judicious, and will undoubtedly receive the hearty endorsement of nearly the whole regular medical profession. True science and her votaries can not be made to harmonize with pathies and isms; like oil and water they will not mix.

CIRCULAR.

UNITED STATES CENTENNIAL COMMISSION.—INTERNATIONAL EXHIBITION, 1876—PHILADELPHIA—BUREAU OF MEDICAL SERVICE.

Owing to the very large number of persons who contemplate a visit to Philadelphia during the coming summer, it seems important that the utmost publicity should be given to all facts bearing on the sanitary condition of the city.

The following statistics, which have been obtained from the most authentic sources accessible, represent the mortality in some of the chief cities of the world, during the past four or five years:—

	NUMBER OF YEARS.	AVERAGE POP- ULATION.	AVERAGE TOTAL MORTALITY.	AVERAGE DEATH RATE PER THOUSAND
Vienna,	5	648,560	20,424	31.42
New York,	5	994,458	29,601	29.93
Berlin,	4	950,000	28,420	29.91
London,	5	3,284,488	76,741	23.33
Paris,	4	1,851,792	42,724	23.06
Philadelphia,	5	744,831	16,573	22.27

While thus showing an average rate of mortality, more favorable than that found in any other city containing over 500,000 inhabitants, Philadelphia has recently (1874) attained a degree of healthfulness almost unparalleled, viz.: with a population at that time of 775,000, the number of deaths was but 14,966, giving a death rate of only 19.3 per thousand. These very favorable results are largely due to the abundant and cheap water supply, and to the opportunities given, even to the poorest citizens, for the enjoyment of pure country air in the great Fairmount Park, which contains 2,991 acres. The extent to which this, valued by the citizens may be inferred from the fact that during the year 1875, the Park was visited by over eleven million persons.

The most powerful influence of all, however, is the absence of that overcrowding of the population, which is the most fruitful source of sickness and death in many quarters of nearly all other large cities. This will be more clearly comprehended when it is remembered that 817,488 inhabitants of Philadelphia are spread over an area of 129½ square miles, which are traversed by more than one thousand miles of streets and roads; and that the city contains, in addition to other kinds of buildings, 143,000 dwelling-houses occupied by families,—a number exceeding by over 40,000 that of any other city in America.

The climate of Philadelphia is also, on the whole, a favorable one, although presenting many of the peculiarities common to inland localities. The mean annual temperature of the last ten years is 53.73° Fahrenheit; the average annual rain-fall is about forty-five inches.

The following table exhibits the mean temperature of each month, for the past ten years, showing that the range is far less extreme than is found in many other less favorably situated localities:—

MEAN TEMPERATURE (FAHRENHEIT) OF EACH MONTH, DURING THE
PAST TEN YEARS.

January.....32.72° F.	May.....63.24° F.	September ...67.72° F.
February.....33.12 “	June .....73.54 “	October .....56.03 “
March .....39.16 “	July.....78.74 “	November ...43.34 “
April .....53.36 “	August.....75.92 “	December.....33.02 “

It is thus seen that only during the months of June, July and August does the mean temperature rise to a high point. During this period there are very rarely any prevailing epidemic diseases; and the chief mortality occurs among children, especially among the poorer classes.

The health of Philadelphia at present is unusually good. Timely efforts have been made to secure an abundant water-supply to meet the great increase in the demand which must be expected this summer as compared with previous years. Constant watchfulness will be exercised by the authorities to maintain cleanliness, and to avoid or remove every possible cause of disease.

Within the Exhibition grounds a rigid sanitary inspection will be maintained, under the control of the Bureau of Medical Service; and thus a guarantee will be afforded that no cause of infection or disease will be allowed to occur through neglect of this important duty.

The object of this circular has been to call attention to the unusual sanitary advantages of Philadelphia, and to the preparations which have been made to ensure the highest possible degree of healthfulness during the approaching Exhibition season. It is proposed to issue at a certain intervals other circulars, announcing in an official and accurate manner the sanitary condition of the city, so that entire security may be felt, by all who desire to visit the Centennial International Exhibition.

WILLIAM PEPPER, M. D.,

15th April, 1876.

Medical Director.

MARRIED.—At Avondale, April 25th, Dr. John D. Jones, to Miss May Cecilia Potter.

Dr. Wm. B. Hazard, succeeds Dr. W. A. Hardaway, as Editor of the St. Louis Clinical Record.

Reviews and Notices.

Monthly Review of Nervous Disorders and Insanity.

By Prof. D. A. MORSE, M. D.

- I. *Lectures on Diseases of the Nervous System.* By JEROME K. BAUDY, M. D.
- II. *Sixth Edition of Diseases of the Nervous System.* By WM. A. HAMMOND, M. D.
- III. No. 15 of American Clinical Lectures. *The treatment of mild cases of Melancholia at Home.* By E. C. SEGUIN, M. D.
- IV. Report by M. B. ANDERSON and J. C. DEVEREUX to State Board of Charities of the State of New York: *Relating to Hospitals for the Sick and Insane*, with an appendix by H. B. WILBUR, M. D. *Report Relating to the Management of the Insane in Great Britain.*

The first work upon our list, that of Dr. Baudy, appeared some weeks ago and has been pretty fully reviewed by the Press. Hence the character of the work, that which demanded its issue, style, etc., needs no comment. To us it is an acceptable work, well written and containing much valuable matter. The work fills a place in the literature of nervous disorders and insanity occupied it is true by authors taken in the aggregate, but not in *detail*. The same may be said of the second upon our list. Hammond claims for his work that it rests upon original observation and research. He says, "it is no mere compilation." Observations and reports of cases may be original, but the principles involved upon which such cases rest for analysis and explanation are a matter of another nature. Deductions made may be original so far as the individual case is concerned, yet in general may have been applied a thousand times.

Dr. Baudy considers some subjects not discussed by Hammond, while this last introduces subjects not found in Baudy. The two works should however be read together, chapter by chapter, whenever the same subject is discussed in both.

Baudy opens his work with a chapter upon *Cerebral circulation*. He declares the cerebral substance not compressible, borrows Elam's figure of the sponge to illustrate its porosity, and claims that while the quantity of *blood* circulating may change, the quantity of *liquid* in the cranial cavity never can. He says "this is explained by the inverse ratio of compensation existing between the vital current and the cerebro-spinal fluid." He adheres to the ancient idea that the principles of hydraulics involved will not permit a change of quantity, and says the brain substance will not bear any considerable degree of compression.

The old writers as Monro, Abercrombie, Kellie, Clutterbuck, and Watson in the first editions of his lectures, maintained similar views as to the cerebral circulation when they considered the blood current, the observations upon congestion of Esquirol, Brodie,

Hooper, Cook, Portal, and later the observations and experiments of Burrows, Pettenkofer, Voit, Durham, Brown, Fleming, Kussmaul and Tenner, have forever set at rest this question. They teach us that arbitrary rules will not, nor even rules that apply in ordinary physics, determine questions dependent upon vital influences—that physiological laws antagonize apparently the physical forces, as when blood flows to the head leaving the extremities cold—force of gravity having been overcome. If we are to reduce the brain and its membranes to their actual solid constituents then we admit there can be little change of the absolute quantity of liquid in the cranium, but otherwise it has never been positively demonstrated, we *know* the quantity of blood can be altered, and some cases of hypertrophy show us that a considerable degree of compression may be maintained of the brain substance.

The first chapter of Hammond's work is devoted to *cerebral congestion*, the second to *cerebral anæmia*.

Lecture II, of Baudy is entitled *Hyperæmia of the Brain*, Lecture III, *Partial Anæmia of the Brain*; Lecture IV, *General Cerebral Anæmia*.

These chapters will illustrate as well as any contained in these works what we have said concerning the necessity of reading both. Baudy divides hyperæmia into two kinds, *active* and *passive*, active hyperæmia is arterial fluxion, passive is venous. He then discusses the causes, symptoms, prognosis and treatment.

Of anæmia he discusses the causes: *Closure of the afferent blood vessels*, *collateral œdema*, pressure upon the capillaries by tumors, abscesses, clots of blood, etc. He then treats these in detail, also the Pathological Anatomy in Anæmia in the Brain, the differential diagnosis between *Thrombosis* and *Embolism*. Hammond divides Cerebral Congestion into active and passive, and of each makes six varieties: 1 apoplectic; 2 paralytic; 3 convulsive; 4 soporific; 5 maniacal; 6 aphasic. He treats each variety individually, considers more fully the nature of each form of congestion, also the morbid anatomy and treatment. Hammond shows a more mature knowledge and more thoroughly digests his subject. To Partial Anæmia of the Brain, Baudy devotes twenty-one pages, Hammond twenty-eight, illustrative cases are cited.

Baudy devotes to Insanity five lectures, 62 pages; Hammond 67 pages. Baudy says: Insanity is a disease of the brain, yet it does not invariably have its origin there; indeed, it may start almost anywhere else, as in the diseased uterus in the female, or in some morbid condition of the colon, and in either case it will disappear upon proper treatment being addressed to its source, there—"by removing the cause." (Shroeder van der Kolk's *sympathetic insanity*.) Again he says: "In the majority of cases, I believe insanity originates at a greater or less distance from the brain, and hence it is mostly a secondary affection, being rarely idiopathic."

This has a proper sound; as we said in our last review, insanity may be the result of disease of any part, or of the whole nervous system.

Baudy's explanation of the nature of insanity is good. His tenth lecture is devoted to classification and causes. He believes in the simplest possible division of the different varieties of this disease, and thinks Pinel's method most satisfactory: 1st, *Mania*; 2nd, *Melancholia*; 3d, *Dementia*; 4th, *Imbecility and Idiocy*. The causes he mentioned are: 1st, Climate; 2d, Religion; 3d, Civilization and its progress; 4th, Sex; 5th, Period of life; 6th, Education; 7th, Individual predisposition; 8th, Insane temperament. These he terms leading causes. He mentions eight exciting causes: 1st, Masturbation; 2d, Drunkenness; 3d, Epilepsy; 4th, Transmutation of nervous diseases; 5th, Chronic diseases; 6th, Sexual functions; 7th, Injuries to the head; 8th, Moral cause. Baudy does not believe in the existence of monomania yet practically proves it to exist like many others. He says: We know that insanity is always a disease of the brain, but monomania is generally the result of some other form of insanity, in the convalescence from which there *has been a clearing up of the morbid condition to a certain point, at which it is arrested, and thus monomania for life remains.*" If a man may be restored to such a point that a monomania only remains why may he not begin in like manner and become insane only to such a degree? "It is a poor rule that will not work both ways." (See pages 23 to 36 of our report to Ohio Medical Society on *monomania*.) Hammond says: "The brain is the chief organ from which the force, called the mind, is evolved, and, so far as the present inquiry goes, may be regarded as the only one. For, though, wherever there is gray nerve-tissue, nervous force is generated, and though all nervous force partakes more or less of the character of that which we call mind, its qualities are not of such a nature as to bring its operations within the scope of this chapter. By mind, therefore, we understand a force developed by nervous action, and especially by the action of the brain."

In the address delivered before the New York Neurological Society, May 3, 1875, entitled the *Brain not the Sole Organ of the Mind*, this author concludes:

1. "That of the mental faculties, perception and volition, are seated in the spinal cord, as well as in the cerebral ganglia.

2. What the cord is not probably capable of *originating* mental influence independently of sensorial impressions—a condition of the brain also, till it has accumulated facts through the operation of the senses.

3. That as memory is not an attribute of the mental influence evolved by the spinal cord, it requires, unlike the brain, a new impression; in order that mental force may be produced."

This confounds instinct and intellect, sensori-motor and reflex action. We have presented this subject in the report above cited, and also in the lecture published in the January number of the LANCET AND OBSERVER, 1876. Pfüger inferred from the adaptation of means to an end, as in his well-known experiment with a decapitated frog, that the spinal cord possessed consciousness. In

other words, when a decapitated frog performed an act as trying to brush off acetic acid from its leg, he thought the cord showed evidence of design, will, and knowledge of what it did. Is it an evidence of consciousness in the iris that the pupil is contracted in the light and dilated in darkness? If so, then the stomach is conscious of the presence of food, and for that reason pours out gastric juice, in short, if this be true, there is no such thing as mind in the sense we have always considered it, but one general mind pervades all nature, and every act performed that indicates design is the result of an intelligent mental force situated in the organization. Man has as many minds, as he has distinct ganglia. Perhaps this accounts for the fact *that so many men's mental forces are so scattered*. The idea is not new and has been fully discussed.

Hammond defines insanity, citing the definitions of Haslam, Prichard, Hoffbauer, Bucknill, Guislain, Maimon, and Gilman. He presents also various classifications, and is more elaborate in this than Baudy. We presented his classification in the March number. The subject is illustrated with a number of wood cuts. At the price of the book, and to correspond with the print, these illustrations should be better.

We might follow these works through comparing chapters devoted to the same subjects, but the result would be the same. The work of Hammond is by far the most satisfactory, and unless the cost is the main point considered, will have preference. It is a valuable work, and exhibits fully our knowledge of these subjects, representing the views of Charcot, Duchenne, and others.

We have no doubt that a review of many chapters, upon Ataxia, Chorea, or Paralysis would interest the reader, but space will not permit, as each would require, to do it justice, as much as we have for the whole review.

Our next or the third on our list is No. 15 of the American Clinical Lectures. The author presents as a text four cases, from which he makes deductions. The cases are reported at length, the prescriptions given in detail, and all necessary information afforded. It is a very valuable paper. The facts upon which he rests his diagnosis in the cases he presents, are as follows:

"A. Psychic pain. This element, difficult to define, was present in all cases. It was indicated by words, and better still, by the expression of the face, and the attitude of the body. The patient feels low spirited, is without hope, the world appears as if a black pall had been thrown over it, friends are careless or have become enemies, every thing goes wrong." He styles it, when mild, a "fit of the blues" and says many persons suffer a short attack, lasting one or two days. Some individuals will have such an attack after a month or two of hard professional work, just as another would close such labor with a fit of sick head ache. A day of desperate brooding followed by a night of good rest ends the attack; next day every thing wears a different aspect.

B. Negative State.—Whether from absorbtion in his mental wretchedness, or because of the influence of dominating or ter-

rifying delusions, the patient shows no spontaneity in action; he fails to react normally (often does not react at all), to external stimuli or to the incitations which may arise within him as results of preserved intellection. A mode of expression of this negative state is the unwillingness of the patient to move, in his liking to sit or stand still in one position for minutes, or hours, or days.

Many melancholic patients (while still preserving reasoning capacity), will never rise from the bed, or dress, or eat, or walk, unless made to do so by an impulse without. This negative state was present in cases i, iii, and iv, and was faintly developed in iii. (This is a mistake of print, no doubt, and should be case ii, as in case iii apathy and inactivity is well marked).

“C. Impairment of volition.—This was more or less marked in all the cases. In case ii, the patient, while unable to overcome her depression and inertia, was yet able to control the frightful impulses to murder her children. Yet she felt that her feeble volition was not to be depended upon, and took precautions to have some one with her all the time, and to lock up all cutting instruments. No one could say when the impulses might become irresistible. In many subjects volition seems to be utterly absent (or unused), for positive purposes, for inciting to externally manifest acts, but appears excessively developed in a negative or opposing way, as in refusing food or objecting to taking exercise. In mild cases no such obstinacy exists, and patients yield to positive commands with greater or less readiness.”

“D. Morbid Impulses.—These were, I think, present in all the cases. The young lad whose case I first related, was led by these impulses to do many disagreeable things, whistling, crowing, stamping, kicking, &c.”

He refers to the impulse to steal, burn and in case ii, homicide.

“E. Hallucinations.”—The boy thought he saw thieves in the room. A patient will hear sounds, smell odors when no one else perceives them. A person may have hallucinations of any of the senses and not be insane. The insane believe in the reality of the impression or perception, this constitutes his next.

“F. Delusions.”—He classifies delusions into sensorial and notional. Thus when it seems to arise from the senses he calls it sensorial, when it seems to arise in the mind he terms it notional, as the belief that a patient will not recover. This is a difference of words but not in fact—both arise from physical states, one of general feeling, the other may or may not be more local.

“G. Preservation of the mind, or of memory and the power of reasoning exists, in most cases of melancholia, which are to get well. In our cases this preservation was almost complete; in only one case, iii, is diminution of memory noted.” He makes brief reference to the physical symptoms; prostration of the nervous system, anemia and malnutrition of the brain.

Treatment. Restoratives: Hypophosphate of lime, soda, free phosphorus, iron, manganese, arsenic, strychnia, alcohol. To procure sleep he advises either chloral or opium. From bromide of

potassium he gets little benefit. Opium, cannabis indica, and alcohol, he says, often make melancholic patients sleep well, and besides improve the nutrition of the brain.

Other points he mentions as galvanization of the spinal cord, regulation of the bowels, sponging with cold water, and exercise.

IV. Dr. Wilbur made a brief professional visit to Great Britain in the summer of 1875, for the purpose of inspecting some of the asylums for idiots and the insane in that country. He says the hope of cure depends on prompt treatment. The proportion of recoveries, in recent cases, is variously estimated at from 73 to 90 per cent. He questions this and thinks it overrated. He takes into consideration subsequent attacks, and does not base his estimate upon first attacks.

The institutions visited by Dr. Wilbur contained in the aggregate 15,000 patients. He was received by the officers with great courtesy. He discusses the management, occupation of patients employed at work, freedom from restraint, the outside patients at Gheel, private asylums.

An appendix furnishes much valuable information.

The Pathology and Treatment of Childbed. A Treatise for Physicians and Students. By F. WINCKEL. From the Second German Edition. Translated by James R. Chadwick, M. D. Clinical Lecturer on Diseases of Women, Harvard University. Philadelphia: Henry C. Lea, Publisher. For sale by Robert Clarke & Co. Price \$4 00.

In Germany this treatise is regarded as a standard authority in this branch of medicine. And as it contains the recent advances in the pathology and treatment of diseases that pertain to the puerperal condition, will be gladly received by a large portion of the profession in this country. We find the author's views directly at variance with those of some prominent obstetricians of this country, especially in regard to the early abandonment of the bed after delivery, that "hemorage, displacements of the uterus and vagina, sudden syncope, even thrombi and emboli may result from such efforts." "As physical rest is requisite, mental repose is indispensable." The various surgical operations for relief of genital lesions of lying in women, are those usually described in all recent text books on this subject, the author giving credit to the successful operations of Sim's and Bozeman, of this country, of Baker Brown, and others in England, illustrating all important lesions by clinical reports of cases.

The other affections that may occur to the puerperal woman are very thoroughly discussed, giving the views of the principal German pathologists, following the opinions expressed by a clinical report of cases, a method that certainly adds value and interest to the book.

Royle's Manual of Materia Medica and Therapeutics. Including the preparations of the British Pharmacopœia, and other approved medicines. Sixth Edition. By JOHN HARLEY, M. D., F. R. C. P., etc., Philadelphia: Lindsay & Blakeston, Publishers. For sale by Robert Clarke & Co. Price \$6 00.

The title page of this volume indicates that the book is a manual, such it can scarcely be termed, as it contains no less than 840 pages, set in small type. The number of successive editions testify to its popularity. This edition has been almost wholly rewritten, and gives a brief description of new remedies lately brought into use; and adapts the work to the new chemical nomenclature. The preparations of the British pharmacopœia are described, and frequent reference made to the American, French, and German pharmacopœias. No reference whatever is made to the physiological action of remedies as observed on animals, the editor stating that "he is satisfied that this is not legitimate therapeutical inquiry," qualifying the statement by saying that nothing short of a patient survey of the operation of a drug in the entire body in health, and under the variable influence of disease, can furnish the data upon which we may build a proper theory of its action." Nevertheless, the world moves and science does make progress, though it may even be at the expense of worthless curs and mewling felines. The book is like all manuals, incomplete, and consequently unsuited to the uses of both students and practitioners.

The Surgery, Surgical Pathology, and Surgical Anatomy of the Female Pelvic Organs. In a series of Colored Plates taken from Nature, with Commentaries, Notes, and Cases. By HENRY SAVAGE, M. D., London, F. R. C. S., etc. Third Edition Revised and greatly Extended, with additional Plates, and Engravings; Philadelphia: Lindsay & Blakeston, Publishers. For sale by Robert Clarke & Co. Price \$14 00.

This work is especially valuable on account of the magnificent colored plates which it contains. These plates being drawn from nature and issued in the very highest style of art, at once commands the admiration of the beholder. The author gives a summary of his impressions in regard to Ovarian Gastrotomy, the results of large experience and prolonged co-operation with the eminent ovariologist, Mr. Spencer Wells. Plates illustrating the successive steps of the operation for removal of tumors connected with the uterus by gastrotomy accompany the text. In like manner, nearly every surgical operation performed within the female pelvis is accurately described and accompanied by large plates illustrating the parts involved. The publishers have done the medical profession a real service, (and one that should be appreciated), by placing a work of this character within the reach of every practitioner of medicine.

The Student's Guide to the Practice of Midwifery. By D. LLOYD ROBERTS, M. D., Me. B. C. P., Philadelphia. Lindsay & Blakiston, Publishers. For sale by Robert Clarke & Co. Price, \$2.25,

The author, in his preface says, this little book was "written mainly for the instruction of students," and "hopes it may sometimes be found of service to practioners, whose scant leisure may make it difficult to consult larger works." We regard that as a very lame excuse for the publication of a book. In the first place, students should study books that give thorough and full instruction in the subject of which they treat. Manuals of this class make no pretense to completeness, but having once been placed in the hands of a student anxious to hurry through his course, he attempts to make it answer the purpose of a text book, and obtains a smattering of the subject. Such books are the natural outgrowth of the method of giving instruction in most of our medical coleges, both are superficial. The next excuse for the appearance of the book is equally unfortunate, namely, that "it may be found of service to practioners, whose scant leisure time makes it difficult for them to consult larger works." Now, the physician who is "a busy practioner," when he feels the necessity of a book of reference in a difficult case of Midwifery, is not going to look at some little mannual like this, the contents of which are as familliar to him as the color of his horse. "The busy practioner" excuse should go out of fashion, as a more nonsensical phrase was never coined. It is well known by all intelligent physicians, that the men who actually do the largest business in the profession, are the very men who have the most time to read; they take the principal journals, and buy the latest books, at the same time reading the news of the day, and current literature of the times. Such mannuals as this accomplish one purpose, viz: The man who compiles the book becomes *an author*.

Atlas of Skin Diseases, consisting of Colored Illustrations, together with descriptive text, and notes upon treatment. By TILBURY FOX, M. D., F. R. C. P. etc., Parts 4 and 5. For sale by Robert Clarke & Co. Price for each part, \$2.00.

The contents of Part 4 is devoted to Lichen Ruber, Lichen Scrofulosus, Eczema Simplex, Eczema Solare, Eczem Rubrum. And Part 5, to Eczema Empetignodes, Eczema Infantilis, Impetigo Figurata, Impetigo Scabida, or Eczema Pustulosum. This a continuation of the great work by Mr. Fox, that will be complete in eighteen parts, giving a series of Colored Illustrations, together with descriptive text, and notes of treatment of the various forms of skin diseases. A glance at a single part is sufficient to convince any general practioner, of the great value of the work, when complete.

Fifth Diseases, and their Prevention. By JOHN SIMON, M. D., F. R. C. S., etc. First American Edition. Printed under the direction of the State Board of Health, of Massachusetts. Boston: James Campbell, Publisher. For sale by Robert Clarke & Co. Price, \$1.00.

As an authority in Sanitary Science, there is none greater than Mr. Simon, the Chief Medical Officer of the Privy Council, and of the Local Government Board of Great Britain.

This little volume of 96 pages was regarded of such special value, that the Massachusetts State Board of Health earnestly urged upon all persons the careful perusal of this masterly essay by Mr. Simon. Believing that if his suggestions were acted on by all citizens, hundreds of lives now annually doomed to destruction, would be saved, and the health and comfort of the people greatly increased. With such a commentary, need we say more. Physicians are necessarily, by reason of their calling, the conservators of the public health, and the people very naturally look to them for information on all subjects pertaining to their physical welfare. And for good whole some reading, we know of nothing better than this little volume.

It is within the reach of every seeker after information.

Obituary.

THE LATE DR. H. A. LANGDON.

RESOLUTIONS PASSED BY THE MIAMI MEDICAL SOCIETY.

WHEREAS, Our friend and professional brother, Henry A. Langdon, has been removed from our midst by the hand of death; therefore be it

Resolved, That the Miami Medical Society has lost in our deceased friend one of its most useful and distinguished members, and the medical profession of Cincinnati one of its brightest ornaments.

Resolved, That in his sincere sympathy with suffering, in his thorough and scientific medical knowledge, and the calm, strong spirit which at all times impelled him fearlessly to do his duty, Dr. Langdon possessed in a most uncommon degree those high qualities which makes a physician invaluable to a community.

Resolved, That to the community which will vainly seek to replace him, to the friends and relatives who have lost him, we hereby respectfully tender our heartfelt sympathy, and mingle our regrets with theirs.

W. W. HIGHLANDS. M. D., PRES.
GEORGE CONNER; M. D., SEC'Y.

THE CINCINNATI
LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.
T. M. STEVENS, M. D., Ass't. Editor.

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Original Communications.

Art. 1.—Some Hints on Otology.

By J. O. STILLSON, A. B. M. D.

Read before the Mitchell District Medical Society.

Having been requested to read at this meeting a paper on some department of otology, I have prepared a few hints upon some of the most practical points in the study and treatment of disease of the ear. If, without any special claims to novelty in what I have to say, I should succeed in awakening a desire on your part, to more carefully investigate diseases of this kind, this paper will have accomplished all that may be hoped for it.

Diseases of the ear have, until within the last ten years, received so small a part of the attention of general practitioners, that the pathology has been wholly neglected by many and the anatomy of the parts has been studied by but few, and then, frequently, in a very superficial manner. Deafness was formerly considered a disease, and people were preyed upon by ignorant quacks, who pretended to remove it by means of oils, panaceas, and even slight of hand perform-

ances. Physicians generally discarded such cases, and even now, frequently resort to little more than a placebo, deeming it useless to meddle with them; hence, investigation has been discouraged, and patients have been compelled to bear the loss or impairment, of one of the most valuable of the special senses. Many affections of the hearing apparatus, are still imperfectly understood, but some which have hitherto been considered incurable have, by specialists, received so much attention and successful treatment, that otology, has arisen to the position and dignity of a distinct science.

Purulent aural catarrh, is an inflammation of the lining membrane of the tympanum, which has progressed to the formation of pus. It is sometimes a sequel of scarlatina, but more frequently the result of exposure, and it is sometimes seen in anæmic strumous children, without any special exciting cause to account for its occurrence, other than a hereditary tendency. It is usually preceded by an ear ache, attended with a feverish condition of the head and face, and is sometimes preceded by a chill. If the ear is examined soon after the commencement of the attack, the membrane tympani will be found red and congested, and the cone of light—the bright reflection usually seen upon the anterior and inferior portion of the membrane—will be found dull or hazy, and often scarcely visible. The pain is very severe, and if not relieved, will increase in severity, until the accumulation of puss within the tympanum, finds an exit, either by a perforation through the membrane, or through the eustachian tube into the throat. Deafness is usually present though it varies greatly in degree in different cases, tinnitus is frequently, though not always an accompanying symptom. As soon as the pus becomes liberated by either of the above mentioned ways, the pain subsides, and the patient falls into a pleasant sleep. Should the pus escape through the membrane, there will be seen for some time before the perforation takes place, a stuffed or bulged appearance of the membrane, indicating a distinct and firm pressure from within. The high pressure upon the delicate sensitive nerves of the membrane, accounts for the presence of the excessive pain. When this is discovered, no time should be lost in giving vent to the pus by means of a paracentesis of the membrane, in its most projecting part. The same rule applies here, as elsewhere, to accumulations of pus. If a case is seen when the first symptoms of inflammation arise—a highly colored membrane, with pain—the disease may be cut short, and a perforation avoided, by the administration of anodynes, a saline cathartic, and the frequent use of warm water, thrown

gently against the membrane with a syringe. Leeches behind the ear are often followed with good results. One of the best anodynes for local administration in this form of ear ache, is a solution of atropine; say gr. ij., to aquæ ʒss. It far exceeds the commonly used laudanum drops. Of course it requires a proper diagnosis of the cause of the ear ache, to use the atropine, for if the ear ache be due to an abscess of the meatus, which is a far different thing, the atropine does not have the above effect. But for myringitis, whether the inflammation be upon the dermoid layer, or upon the mucus layer of the membrane, atropine will be found a specific. Every physician should have an ear speculum and mirror, in order to be able to distinguish between these very common forms. Yet how often do we see these cases turned away without even an examination. And in passing let me make this remark of the practice of dropping anodynes into the ear. They should always be warmed. Any cold application (unless the weather be warm) made to the membrane, will intensely aggravate the pain, while warm applications, are always grateful. If the abortive plan of treatment does not succeed, and the disease still progresses, it may be hastened, as well as the patients suffering be alleviated, by the use of the hot pack. This is made by keeping constantly to the external ear, hot dry cloths. When the membrane shows sufficient signs of the presence of pus within, a good light should be thrown upon it, and the perforation made. Sometimes only a few drops of mucus will exude; sometimes copious quantities of pus; but in either case, marked relief will follow. The evil effects of a perforation of the membrane, are not so great as one would be led to suppose. Where it is made with a knife it will readily close, indeed the chief difficulty will be to keep it open till the pus has stopped forming. Unless a large portion of the membrane sloughs away, a perforation if small does not seriously impair hearing. The chronic form of purulent catarrh is very frequent in our country. It is usually described by writers as otorrhœa, with otitis media, to distinguish it from otorrhœa caused by polypi. In these cases, perforations of the membrane will nearly always be found. When otorrhœa is due to the existence of a polypus, in the meatus; or upon the membrane itself, the removal of the cause is the first thing to be done. This may be accomplished by means of the wire snare, or with a small pair of forceps. After its removal, the meatus should be well washed with warm water, to free it of blood, and the pedicle touched very cautiously with cotton moistened with chloride of zinc pure. One or two applications, or a half

dozen at farthest, will thoroughly remove any trace of the polypus which may remain, and leave the meatus clear. Great care should, however, be exercised not to let the chloride of zinc touch the walls of the meatus or the sound membrane, because its cauterizing will leave a troublesome abrasion. Otorrhœa after the removal of a polypus, and the otorrhœa due to otitis media, require essentially the same treatment; which consisted in keeping the parts clean by means of the syringe used twice or three times a day, the removal of the secretions from the middle ear, and the local use of, astringents or mild caustics. The patient can be taught to practice the Valsalvan method, (holding the nose and blowing through the ear in such a manner, that the air drives the pus outward into the meatus) or Politzers method may be employed. The apparatus used for this purpose, consists of a small rubber bag, to which is attached a short movable tube of rubber, tipped with a nozzle. The surgeon places the nozzle in one of the patients nostrils, and holds it there firmly, by making pressure upon both alæ with the thumb and first finger of the left hand, while he holds the rubber bag in the right. At a given signal, the patient is directed to swallow, (it is sometimes advisable to previously take a small sup of water and hold it in the mouth till the signal is given) when sudden and forcible pressure is made upon the bag. The action of the muscles of the palate draw apart the opposite sides of the faucial orifices of the eustachian tubes, allowing the air to enter, and pass into the tympana. The pus may in this way, be forced from behind the membrane, and then removed from the meatus. Where a stricture of the eustachian tube exist, the catheter must be used, and the stricture gradually overcome by gently passing bougies of different sizes through the catheter. Having thoroughly cleansed the ear, a solution of argent, nit. gr. x to xx aquæ. ʒi may be dropped into the meatus, and allowed to pass through the perforation into the middle ear, and afterwards washed out with water. This may be followed from day to day, or three times a week, until the discharge stops. The deafness will in most cases of this kind, improve by inflation, either with Politzers method, or the catheter. Many other remedies have been used instead of, or in conjunction with the argent. Such as sulphate of zinc, alum, tannin, and pure alcohol, with good effects.

Tinnitus aurium, is one of the most common symptoms of disease of the ear. Whatever be the disease, the existence of tinnitus, should be considered an important symptom in making a diagnosis. Any condition which will produce

pressure upon the labarynth, will give rise to troublesome noises. If we look briefly into the anatomy of the ear, we will readily see the relationship between pressure upon the labarynth and tinnitus.

The three bones which are situated in the middle ear (maleus, incus, and stapes,) form a connection or communication between the membrana tympani and the internal ear.

The foot of the stapes rests upon the fenestra ovalis, which is separated from the labarynth by a thin and delicate membrane. This entrance to the labarynth is called the vestibule, and from it open the three semi-circular canals and the cochlea.

Here, expand the delicate fibrils of the auditory nerve. Floating in the liquid which fills the labarynth is a little bag, containing hair like bristles, fine sand and two ear stones, called *otoliths*. In the cochlea are found minute tendrils, named from their discoverer, *fibers of Corti*. These are regularly arranged, the largest at the bottom of the spiral like plate of the cochlea, and the smallest at the top, after the manner of the arrangement of harp strings in a harp. These fibrils are two or three thousand in number, and seem to be the analogues of the rods and cones of the retina, for they convert the vibrations of sound received through the middle ear upon the liquid beneath the fenestra ovalis into vibrations or pulsations, which act as stimuli to the auditory nerve. This stimulus or impression is conveyed to the brain, and the mind translates it into an idea of sound. Now, it is readily seen, that anything which will accomplish this stimulus by means of producing pressure upon the fenesta, will produce tinnitus; hence, plugs of cerumen in the meatus, shortening of the articulations of the bones in the middle ear by contraction, pressure of the air from without, so as to crowd the membrane in, due sometimes to the partial absorption of the air from within, contraction of the tensor tympani muscle, etc., will all produce tinnitus. Whenever the cause of the tennitus can be diagnosed, the appropriate treatment will suggest itself. Removing a plug of wax, and afterwards inflating the middle ear, will give instant relief when these are the cause. When it is due to contractions, or shortening of the articulations in the middle ear, it is sometimes relieved only after long, continued and regularly repeated inflations with the catheter, or with Politzer's method. The practice of passing steam into the middle ear has received considerable attention at the hands of the profession. It seems to answer in such cases as are due to a want of moisture, or a lack of tonicity in the membranes, especially such cases as are complicated with a thickened

mucus membrane, due to old aural catarrh, and catarrh of the eustachian tube, which has extended from the throat. Where the membrane is found shrunken, and especially if the posterior segment of the membrane presents a folded appearance, while the part in front of the malleus is stretched tightly, the cause may be referred to the contraction of the tensor tympani muscle. This muscle passes from a little bony canal, above, behind and internal to the membrane, in a downward, forward and outward direction, to be inserted upon the malleus. Its contraction is therefore backward, inward and upward, so as to tighten the anterior half of the membrane a little more than the posterior half. Where, therefore, tinnitus is associated with deafness, in which the membrane presents the above appearance, tenotomy of the tensor tympani muscle is to be recommended. Various instruments have been devised for this operation, of which I need not here speak. The tendon has been severed both through a perforation made in front of the malleus and posterior to it, but the latter situation is found to be the most preferable, since the muscle is more easily reached from this point. Dr. Bertolett, of Philadelphia, gives in the Report of the Transactions of the American Otological Society for 1873, a report of the operation in sixteen cases, in ten of which the tinnitus was either relieved or permanently stopped, which shows a favorable result in sixty-five per cent.

This simple perforation of the membrane has been found to relieve tinnitus in some cases. This is due to the relaxation of the membrane, and the subsequent relief of tension upon the tensor tympani muscle. Recent experiments have proven that there is another variety of tinnitus dependent upon disease, or an anomalous condition of the auditory nerve. Such patients will, in relating the history of their case, usually allude to some other symptoms, pointing to a nervous affection, and the failure to find any disease in the middle ear, will confirm the diagnosis. Tinnitus aurium, when associated with nervous symptoms, becomes a very important factor in the diagnosis of diseases of the brain; hence, to the general practitioner, it is a subject in every way worthy his attention and study. I have a brief collection of experiments with electricity, upon some cases in which the tinnitus was of this last variety, but they are not sufficiently extensive to warrant a definite conclusion as to this means of therapeutics. The subject may, however, be mentioned as one worthy of investigation, and may yet prove to be a valuable means of treatment.

Art. 2—Report of a Case of Puerperal Insanity, Complicated with Rubeola, Erysipelas Phlegmonodes, and Pyæmia.

By W. H. DEWITT, M. D., Physician at Longview Asylum, Carthage, Ohio.

Catherine Mc——, admitted February 7th, 1876. Native of Kentucky; aged, 39 years; occupation, housekeeping; religion, catholic. Second attack, duration about 10 days; duration of previous attack, two weeks.

Physician's certificate states that the patient has hallucinations, described as follows: Sees devils and evil disposed persons following and watching her; hears imaginary sounds, and voices speaking to her. Has shown a disposition to injure herself and others, to destroy clothing, &c. Supposed exciting cause of present attack is confinement. (Fifth child). Has not been intemperate, nor received any injury to the head or been subject to epilepsy. Disease is perhaps hereditary.

Family History—Father and mother were sane, but a maternal uncle and niece suffered from mental disease. The latter was an inmate of Longview Asylum for several months. Father and mother, both temperate; none of her brothers or sisters have been insane; no consanguineous marriages.

Personal History—Patient has usually enjoyed very good health, has been temperate in her habits. The first attack of insanity came on soon after the birth of her first child, and was only of a few days duration, partaking rather of the nature of melancholia. The symptoms were so mild that the friends were not warranted in sending her to an asylum for care and treatment. Recovery took place at home and her mind remained clear until the outbreak of this attack.

Present condition—Is a woman above medium height, tolerably well nourished, rather stout in appearance, dark complexion, dark hair and gray eyes; pupils active; temperature, above normal; pulse, 124 per minute; and irritable. Bowels constipated, tongue, but slightly coated.

In conversation she is exceedingly irrational and incoherent, memory also defective, can not tell how many children she has or how old her youngest is, says sometimes she can remember and at other times she can not. Answers to questions are vague and uncertain. Thus far, since admission, she has been quiet and orderly. Husband asserts that at home, she has been noisy and turbulent, and recently used obscene and very

indecent language, also on one or two occasions has attempted suicide. Her delusions are of the nature described in the medical certificate. She has slept but little and taken little nourishment for several days past. Ordered purge and chloral hydrate, gr. 40 on going to bed, the latter to be continued from day to day as long as insomnia persists.

Feb. 8. Slept but little during the night, restless most of the time. Bowels moved freely, discharge very offensive.

Feb. 9. Passed a very good night, slept in all about six hours. Is exceedingly restless this morning, constantly moving about in the crib. At times is very noisy and incoherent; but has not as yet indulgent in any obscene language. Is taking quite freely of nourishment. Temperature about 100, pulse less frequent. Bowels moved again this morning, tongue but little changed.

Feb. 10. Slept from 8 P. M. till 2 A. M. At present appears a little stupid. Mental symptoms continue much the same; bowels somewhat relaxed since yesterday. Temperature still above normal, pulse 110. Takes food in liberal quantities. Ordered gtt. xl (40) of bimeconate of morphia four times a day.

Feb. 11. Chloral was omitted last evening and in consequence, patient slept none, was very restless all night, but is less so this morning, not noisy or loud in conversation. Bowels have not moved since yesterday. Preternatural heat of surface continues; pulse 88, tongue dry and sticky. Has a slight lochial discharge, much less than on admission, is not offensive, and has not been so at any time.

Feb. 13. Passed a good night, but is still restless when awake. Has melancholic delusions, imagines that she has perpetrated crimes for which she is to be punished, that she is the prolific source of all the misery and suffering in the world. Language is very disconnected. Had a natural stool this morning, pulse 90 per minute.

Feb. 15. Has been up and about the ward a greater part of the time since last note. Mental condition, much the same, memory continues very weak. But little if any change in temperature of body, pulse rather more frequent, tongue has improved slightly.

Feb. 16. 10 A. M. A marked change has taken place since yesterday. She is now in a state of high excitement, more so than at any previous time, language profane and obscene, made several unsuccessful attempts at personal injury, destroyed her clothing, &c. Says she has deceived her husband, believes him to have died recently. Saw the new made grave

and was assured it was that of her husband. Her mental suffering seems of the most intense nature, cries constantly, slept none during the night, being noisy and restless most of the time. 7 P. M. Patient slept from 1 until 4 P. M., when she awoke, was seized with a convulsion which lasted several minutes; remained comatose for nearly or quite an hour after the convulsive movements ceased. At present writing she is extremely restless, constantly moving about in the crib, pulse frequent and full. Ordered chloral \mathfrak{ss} potass bromide gr. xxx, tinct. digitalis \mathfrak{ss} . to be given at one dose, bimeconate of morphia, to be discontinued.

Feb. 17. Slept soundly and quietly until late this morning. Took freely of nourishment on awaking; mental aberration still well marked; much less excited, but still restless at times. Pulse improved; bowels have not moved since the 13th. Ordered purge of magnesia sulph.

Feb. 20. Has been comparatively quiet since last note, at times a little uneasy and restless, complains of feeling very tired and weak, still has some few delusions; memory improved; takes food in sufficient quantities; temperature of body $99\frac{1}{2}$; pulse somewhat accelerated.

Feb. 30. No special change to note; has been sleeping well when under the influence of hypnotics; experiences some difficulty in micturition and the quantity of urine is much less than normal. Ordered diuretic mixture.

March 5. Patient has the characteristic exanthem of measles. First appearance was on the face and neck on the evening of the third inst., and has since extended over nearly every part of the body, at a number of points it is confluent, particularly so on the neck and shoulders. The face is flushed and œdematous and the eye lids are markedly swollen. The prodromal stage was not well marked, the catarrhal symptoms were slight and limited in extent. She had a slight cough and catarrh of the schneiderian membrane. No sneezing or photophobia, temperature $103\frac{1}{2}$, pulse 126, bowels are quite regular, tongue dry and coated, complains of throat being a little sore. Urine rather scanty and high colored.

March 7. Fever is abating and eruption beginning to fade, mental symptoms but little changed, same delusions present, but less obtrusive, very quiet and not in the least excited. Pulse 110, tongue dry and coated, bowels open, urine passed freely and in sufficient quantity. Diuretic discontinued.

March 12. Tissues in neighborhood of left parotid gland swollen, indurated, and very sensitive to touch. Ordered tinct. iodine painted over swelling morning and evening. The erup-

tion has lasted exceptionally unusually long; on some parts of the body the skin presents a marked scarlatinous appearance. Mentally unchanged.

March 13. Swelling has rapidly extended since yesterday, involving the left side of the face and scalp, parts œdematous and pit upon pressure, has every appearance of erysipelas, pain intense. Application of iodine to be continued. To take gtt. xl of tinct. ferri. mur., gr. ij quin. sulph. every three hours.

March 16. Swelling of scalp subsiding, parts in immediate neighborhood of gland very hard and painful. Ordered to be poulticed; temperature of body less, pulse diminished in frequency and force. Has passed very good nights. To-day, is quite rational in her conversation.

March 25. Mental condition has been exceedingly variable since last note, at times excited, incoherent and delusionary, and again quiet and quite rational. Swelling softening, can get deep seated fluctuation.

March 27. Abscess opened by free incision, discharged several ounces of unhealthy looking pus. Ordered parts to be cleansed several times a day with carbolic acid solution. Quite calm mentally, complains again of weakness. Ordered stimulants.

March 29. Had a rigor yesterday, and this morning complains of pain and stiffness in right shoulder and elbow. On examination found to be swollen and sensitive to pressure. Skin hot and dry, pulse rapid and feeble. Breath has that peculiar saccharine smell, looked upon by some as being pathognomonic of pyemic poisoning. Tongue dry and thickly coated. Abscess of face, discharging copiously an unhealthy and fetid substance.

April 4. Some fluctuation in vicinity of shoulder joint. Two ounces of pus tinged with blood evacuated with subcutaneous aspirator. Swelling of elbow subsiding. Face still continues to discharge a little, Temperature, 102½; pulse, 110 and feeble; bowels regular. At times, sweats profusely. Is emaciating very rapidly. Taking beef essence and egg nog.

April 13. Has changed none for the better. Abscess of shoulder refilled. About three ounces of bloody serum containing shreds of cellular tissue removed to day with aspirator. Has a metastatic abscess forming on posterior aspect of right leg below the knee, very hard and painful. Temperature continues high, pulse frequent and small, tongue dry and coated, teeth covered with sordes, leg poulticed.

April 15. Shoulder again refilled. A less quantity of sanguinolent serum removed with aspirator. Leg very much

swollen and painful and shows a somewhat reddened surface. Wound of face closing, but little discharge. General symptoms have changed but little if indeed any. Seems to be holding her own, mentally, quite well. Seldom has anything to say, and is free from excitement.

April 20. Opened abscess of leg by free incision, discharged abundantly. To be cleansed thoroughly with carbolic wash several times a day. Wound in face closed; shoulder is now natural in appearance, perfect freedom of motion. Left leg swollen in nearly the same locality as the right and presents much the same appearance. Temperature considerably above normal; pulse frequent and small; bowels inclined to be constipated, seems to be suffering from severe pain in bowels, ordered injection per rectum.

April 23. Had a copious stool after using the injection, which gave relief at once. Swelling of leg soft. Opened by incision; local treatment to be pursued as before indicated.

May 9. Condition improved. Abscesses are entirely healed. Temperature nearly or quite normal, pulse, 80 per minute and of better force, tongue clearing off, sleeps and eats very well, has been taking solid food for several days. Tonics and stimulants are still continued.

May 28. Still improving. Is now up and about the ward, and on one or two occasions has gone out walking. There still remains a good deal of mental hebetude. It is not uncommon, however, for persons suffering from this particular form of insanity to drift into a state mental inactivity after the acute symptoms subside, from which state they recover sooner or later. Her condition is now very promising and after having passed through such a complication of trouble it is very pleasant to have every reason to believe that she will fully recover both mental and physical health.

Art. 3.—Case of Sarcomata.

By THOS. H. KEARNEY, of Cincinnati.

Reported to the Cincinnati Medical Society June 6, 1876.

I. B. M.—, a man about 50 or 52 years old; a finisher by occupation. December 1st was called to see him when I was given the following history: thirty-seven days ago he was attacked with pain in the left side, midway between the last rib and crest of the ilium, radiating down the thigh. This pain soon came to

be expressed in the limb below, in such localities as the front of the knee, the outside of the thigh in the trochanteric region, the inner aspect and back of thigh. More lately it has extended to the calf of the leg, this pain has not compelled him to keep his bed constantly until the past day or two. Two or three weeks after the commencement of the pain, he noticed his foot and leg were swollen. Another point where he has felt extreme pain is behind, in correspondence with the sacro-iliac joint. At present there is great enlargement of the left lower extremity, from hip to foot. The parts are œdematous, and the capillary circulation at the surface is exceedingly sluggish. This condition is most marked about the middle of the leg, where the surface is of a distinct red color—not general but punctate. The pain in the limb is described as very severe, particularly at night. His general appearance is that of a man of much enfeebled or broken down health. Pulse, 96. Ordered him a light tonic.

Dec. 3. On or about this date observed that there was no appreciable pulsation at the groin or behind the inner malleolus; though the pulse in the dorsal artery of the foot continues distinct. His water is free from albumen, and apparently healthy, otherwise.

Dec. 4. He thinks there is some improvement, as he is enabled to extend the limb more fully than before, and the tenderness has diminished. He has been resting pretty well at night with a couple of quarter grain doses of morphine, to-day firm pressure in the iliac fossa reveals what appears to be a greatly enlarged and indurated condition of the iliac vein on the left side; the induration being easily traceable down the femoral for some inches. Pressure on these parts also reveals decided tenderness.

Dec. 10. There is more pain in the limb though less swelling. There is difficulty in urination, he says, of three weeks duration. No appetite.

Dec. 15. He suffers very constantly, but most severely whenever he attempts to urinate. To-day an irregular swelling can be distinctly made out occupying the iliac fossa as far forwards as Poupart's ligament, this is tender on handling. A large vein exists on the outer and anterior aspect of the left hip.

Jan. 1. The difficulty in urination has been steadily increasing and to day there is complete retention. He says he has passed no water since day before yesterday. The introduction of the compound catheter of the pocket case was attempted, but without success. Towards evening repeated the attempt

with a flexible french instrument, and although it readily passed in for its whole length, but about an ounce and a half of highly bloody urine was drawn off. These efforts caused him very much pain.

Jan. 2. A flexible catheter was passed twice to-day, but only blood flowed.

Jan. 3. The catheter was passed this morning but no urine was obtained. Dr. Mussey saw him in the afternoon. It was attempted to pass a large silver prostatic catheter this evening, but without success, the effort causing intense pain. It was also tried to aspire the bladder with an India rubber syringe and flexible catheter, but this also failed.

Jan. 5. The statement has been uniformly to the effect that he never passes any water. But this afternoon an ounce or more of water was observed in the chamber vessel, with a small amount of healthy looking feces, which were moulded as though they had been forced through a very much contracted passage. His general condition is steadily failing. His pulse, however, continues remarkably regular at 96. No further attempt at catheterization since the evening of the 3d.

Jan. 6. He has been inclined to sleep a good deal for the past 36 or 48 hours, and the pain has very much diminished. His stomach has become quite irritable, and during the past couple of days he has been vomiting quite frequently. Besides throwing up whatever food he takes, he also expectorates and vomits a considerable amount of frothy and watery mucus. His bowels now are disposed to move quite frequently. Temperature this morning 97°, yesterday it was 98 scant. The growth has steadily increased. The bladder appears much distended, and its wall, particularly on the left side, seems to be thickened and rigid. Strength steadily failing. No medicine.

Jan. 10. He continues to decline steadily, and vomits a good deal of bilious fluid. Had a natural soft feculent passage to-day, and with it, about an ounce and a half of urine.

Jan. 12. At 11 P. M. he died of exhaustion, remaining conscious up to the last.

Autopsy, by Dr. Mackenzie, 17 hours after death; there was moderate emaciation, most marked about the face and neck. The abdomen only was examined. The left iliac fossa was occupied by an irregular mass that tapered downwards with the great blood vessels to an unascertained extent, and reached upwards almost to the kidney, being confused with lumbar glands which were greatly enlarged. The iliac vessels were embeded in this mass, and seemed completely collapsed by the pressure they were subjected to, the vein contained

small masses of old and friable clot. On the right side there was some appearance of the disease, but not enough to interfere with the circulation there. The cavity of the pelvis was almost entirely occupied by the morbid mass; the bladder and surrounding fascia, all much thickened, were blended together inseparably. The contracted rectum alone seemed the only part that remained separate and uninvolved. The walls of the bladder were greatly thickened at all points, and irregular masses projected into its cavity, which was small and contained neither urine or blood. The prostate gland was enormously enlarged. The left kidney was much under the average size, congested, and its pelvis decidedly dilated. The ureter was much thickened up to its origin. The right kidney was larger and presented the conditions of its fellow, but in a less degree. The ureter on that side appeared normal. Within this kidney there was a considerable amount of friable macerated bloodclot. In the liver there existed several nodules, apparent on its surface, about the size of filberts. The organ was not removed, and not incised to any depth.

Art. 4.—Tenia.

By N. H. CHURCH, M.D., Chicago, Ill.

John Kempkee; aged 32 years; laborer; emaciated and careworn; presented himself February 29, 1876, with unmistakable symptoms of tape worm, having passed single joints. He had been under treatment at one of the free dispensaries, where oil turpentine was prescribed in large doses, without the desired effect. After preparing the patient, by prescribing a physic, ordering him to fast, I prescribed: \mathcal{R} Brayera or Koosso \mathfrak{z} i Ft. pulv. no. 2. *S.*—One powder every four hours, followed with castor oil and turpentine. This not having the desired result, March 1st, gave \mathcal{R} Mallotus phillipinensis or kameela \mathfrak{z} iss Ft. cht. No. 3. *S.*—One powder every 3 hours was given, with no result other than severe cathorsis. March 3d. The seed of *Curcubita pepo* or pumpkin was next prescribed. \mathcal{R} *Curcubita pepo*. sem. \mathfrak{z} ii, aqua bullient \mathfrak{z} i; macerate two hours and strain. *S.*—All to be taken in the course of four hours, in two hours followed with castor oil, two tablespoonsful, with one teaspoonful oil turpentine. The patient had several stools

during the night, which, contrary to advice, he failed to preserve. He did not call again for several days, stating, as a reason, that he had no return of the trouble. He has remained in good condition since, having gained fifteen pounds in weight.

Wm. Pomeroy; aged 25 years; laborer; in poor condition; nervous and fretful; appetite moderately fair; applied June 6, 1876, for the relief of stomach trouble. He presented marked symptoms of tape worm. Prescribed \mathcal{R} Kameela 5iii, Ft. cht. No. 2. *S.*—One powder every three hours, to be taken in simple syrup or mucilage gum arabic. One hour after second dose, and during fourth stool, the worm, *tenia solium*, came away entire, measuring fifteen feet. Patient had twenty or more stools from effects of kameela. Up to this date he has had no more trouble.

I report these two cases to show that kameela is not infallible.

Art. 5—Small-pox Exterminators.

By T. C. M.

It has become the fashion, for the various medical colleges in the United States, to annually trumpet to the world at large, the number of graduates ground out for the year just ended. Thus, we learn that the "Bunkum College," has had a class of four hundred students, and has granted diplomas to one-third of that number. "Look at our graduating class," boasts its college circular, it is the largest, or almost the largest, in the whole country. Does not *our* imposing array of figures impress you that *our* institution is one of the most prosperous in the land? What is it that attracts all these students to *our* halls? We answer, in a true spirit of modesty, *our* erudite professors; *our* superb hospital clinics; *our* reputation as an "ancient school." The circular forget to add, "*our low fees; our invariable habit of granting diplomas to all who may apply.*" How fascinating is the logic employed by the average college circular, how charming is the delusion into which it leads its reader. Let us ignore *quality* and extol *quantity*; let us judge of all things by a pecuniary standard; *success* implies merit, ergo, the college with the largest graduating class is the most meritorious. There can be no fallacy in such reason-

ing, viewed from a commercial stand point. Mr. X. who did a trade of a million dollars per annum, failed one day. The secret of his failure was discovered to be this, *i. e.*; he did an immense business on a *very small capital*. * * * * There is a moral to be drawn from the history of X—medical colleges could apply it to themselves, but, it is useless to add, they will not. Some day, in the not far off future, the unprofessional public of the United States, will remedy this growing evil of medical colleges, as a measure of self protection.

Reform in medicine will never be accomplished by the profession itself; too many antagonistic interests are at stake; too much superior talent is wandering at large, seeking chairs in newly organized, or ancient colleges. The people will legislate for the profession, and the plan, advocated by Prof. Wood, of *depriving all medical*, or so called medical colleges of, the right of granting diplomas, will be enacted. Then let medical institutions, regular and irregular, grind out as many candidates for the title of "M. D.," as they please. *The right to practice medicine and the giving of diplomas, should only be granted by a State Board of Medical Examiners*; without such a diploma, let no man be allowed to attend the sick. This plan, if pursued, will solve a much vexed problem, and will protect, not only the general public, but the better class of medical practitioners. Happy, happy medical millennium! The future undertaker will be less busy; the sexton shall not toll the church bell so frequently; while graveyards will yawn less often than formerly. Much has been written on sanitary medicine of late years, but a final chapter on "the influence of large medical graduation classes on the Public Health," might prove to be interesting reading; a future axiom may be. *The mortality of a State is diminished, in direct ratio as the number of medical colleges is decreased.* Is this unorthodox? Perhaps so; nevertheless, it may be argued, on the other hand, that the public at large are created for the physicians benefit, not the physicians for the publics benefit, this may be ambiguous, but let it pass.

Our remarks are called forth, by the discovery that a new order of specialists have arisen in our midst, *the natural outgrowth of the present system of medical colleges.* A class of specialists known and classified as "Small-pox Exterminators." These public benefactors, ignoring the wonderful discovery of Jenner, have at last found *specifics* for that dreadful visitor, variola; *specifics* which will abrogate, dissipate, extirpate and exterminate the last germ of the disease, rendering small-pox as harmless as the itch. Unfortunately this is a

sceptical age, probably for the reason, that the public are not as easily duped, as in former times. Ocular demonstration is demanded, in order to satisfy the mind that white is white, and black is black. Thus, when we see a human brain punctured by electric needles, and the patient dies shortly afterward of malignant brain tumor, we know that the tumor, and not the needles, killed the patient. In the same way, when we see a dislocated kidney replaced by the hand introduced into the rectum and small intestine, and the patient dies shortly afterward, we know that the dislocated kidney caused death not an accidentally ruptured gut. There is a marked co-ordination in these cases between cause and effect, so palpable, that it is plainly reflected on the most obtuse retina. But with the "small-pox exterminator," it is different, here, we have only faith to go on, and having less of that article than is supposed to be contained in a proverbial mustard seed, the public, impede, obstruct and bar the way to the introduction of *small-pox specifics*. This is sad, enough in fact, to make angels weep, that is, giving on the supposition that angels do weep, and have normally developed lachrymal glands.

When we receive communication after communication from men of talent and genius, who are eking out a miserable living in city and in town; men who are devoting their entire time and attention to the amelioration of the human race; men on whose office walls hang the proud diplomas, granted by the "Bunkum," and other colleges; "Regular," graduates, pure and unadulterated; we become heart sick and sad, and pondering over the fate which has lead men to become "small-pox exterminators," we peruse in silence and wonder epistle after epistle.

It is in the delusive hope of enlisting the sympathy of our hard working, honest, fellow practitioners, that we now present to them, some of the unpublished medical literature of the age. If the perusal of a few letters, selected at random, from a package in our possession, is not conclusion proof that the supply of medical talent far exceeds the demand; then, then, we will agree to cease mourning, and call upon the colleges, to grind out graduates faster than they ever yet have done.

Letter No. 1, directed "To the Bord of helth of Cincinnati, nati, Ohio.

"EMIRSON STATION, KNOX COUNTY, IND.

GENTS—SIR: Having read in the paper that the smal-pox is bad in your city, I wish to inform you that I can cure them in every case if I can git the medison to them before the cups fills. Now, if the Bord of health will give me a permit I

will come, if not, send me four cents, and I will send you enough medison to cure one, with directions, then, if you like, you can have a dozent or a gross sent to you. i will inshure the cure. This is no humbug. Try it on one, and you will send for one hundred bottles. The cure is perfect in twelve hours. Pleas and answer this, in hast.

Address ——— Emerson Station, Knox Co., Ind.

This is confedensal."

Read and ponder over this *verbatim copy*. Here is a young man of talent, wasting his sweetness on the desert air of Indiana. The Board of Health cruelly declined to pay any attention to the letter.

Letter No. 2, directed "To the Mayor of Cincinnati."

"CLEVELAND, Dec. 2d, 1875.

HON. SIR: I understand the smal-pox is in your city. I have a medicine I have tested till I am satisfied that it will cure and prevent the spread of the above named disease. If you wish to try it, I will furnish you the medicine, or come and administer it myself. It is perfectly harmles. Heads of families can administer to the members if they have the medicine. I would like you to try my remedy.

Respectfully yours,

Dr. ———, Ontario Street.

Need we say that "His Honor" declined to try the remedy. *Letter No. 3*, "To the Board of helth, Cincinnati."

"GENTLEMEN: In consequence of a outbrake and spreadin of small-pox in the city of Cincinnati, I think it my duty to point out to you the way to ged rid of a sickness wich is not a tall dangerous, as generally believed. I offer you the followin remedy grateue: For three hours give every hour a half a powder in black warm cofee, at the third hour apply a clyster every second hour as long as the stools shows a putrid agitashun of the bowels. For to make the clyster take the hearto marked powder, a tablespoonfnl of sweet oil, and a pint of boilin water; to be applied very warm. No danger for any nurse if a powder will be taken every two hours.

—————, M.D., — Canfield Street,

Cleveland, Ohio."

The Board of Health cruelly *rejected* Dr. ———'s kind offer. The next letter fills us with a sadness akin to pain. The writer is evidently a man of some education. We quote a few paragrahps:

Letter No. 4, "To the Mayor of Cincinnati."

"COVINGTON, VA., Feb. 7th, 1876.

"DEAR SIR: I learn that small-pox is prevailing to a considerable extent in your city," etc. "I have discovered a combination of medicinal agents that must be regarded as an absolute *specific* for this loathsome disease. It is perfectly safe, and will arrest the progress of the disease in any of its stages in less than twenty-four hours, establishing disquamation," etc. "I am a regular physician of the Allopathic School," etc. "There can be very little grounds for fear of humbugery," etc.

———, M.D., Covington, Alleghany Co.

The Board of Health, however, failed to have a true appreciation of the Doctor's handsome offer, and neglected to send for him. When talent is thus treated, what can mediocrity expect? We have other interesting literature of a more stunning sort, a choice selection of quack business cards, issued by graduates of the "Bunkum" and "Windmill" Colleges; but we refrain from publishing the same, for fear of injuring two highly prosperous (?) (see circular) institutions. Perhaps in the future the profession may call for a volume on the subject. We have the material on hand, and can give names in full, if necessary.

Art. 6.—Removal of Calculus by Lateral Operation.

By T. F. LEECH, of Attica, Ind.

Read before the Fountain and Warren Medical Society.

I was called on November 27, 1874, to see Alexander Matthias of Marshfield, Warren County, Indiana, and found him to be 31 years of age, complexion light, color of hair light, eyes blue, weight about 90 pounds, very thin and worn, having been an invalid since two or three years old. He was married and his family consisted of himself, wife and three children. His disease seemed to be a bladder difficulty, having been unable to work for several years and confined to the house and his bed most of the time, but after elevating his hips and laying upon his back for some time he was able in pleasant weather to walk quietly about the yard and at times

down to the post office, but if he made a quick motion or a mistep something would seem to roll down into the mouth of his bladder and then he was compelled to seek his old position on the bed with hips elevated, and by his continued illness and quiet motions, he got the reputation of being the laziest man in town, but he was a man of strong resolution and had revealed his sufferings to but few, one of his intimate friends told me that "nobody knew what that man has suffered," and Matthias told me himself that "when that thing rolled down it feels like there was ten thousand needles sticking in me."

I introduced a silver catheter into the bladder and immediately came in contact with a stone, and upon introducing the finger into the rectum, I could easily feel the outlines of the stone and discovered it to be a large one, and while holding it steadily between my finger and catheter, the latter slipped off a tuberosity of his stone and lodged firmly in a groove, when I remarked to Dr. Osborn that the stone was rough or else there was more than one, and some were imbedded in the others.

The patient being very anxious to be relieved, I determined to remove it by the lateral operation, the same one I performed successfully the spring before in removing a stone from the bladder of Ben Gray, and previously reported to a meeting of this society held at Attica, Ind., in June last.

On December 4, 1875, assisted by Dr. T. B. Campbell, of West Lebanon, Indiana, Dr. C. W. Osborn, of Marshfield, Indiana, and Dr. M. T. Case, of Attica, Indiana, I removed an oxalic calculus, (the one I have just shown you) which is nearly a cube and measuring four inches in circumference around the square, and about $4\frac{3}{4}$ inches in the diagonal circumference.

The patient was placed upon a table in front of a window, and Dr. Osborn proceeded to administer chloroform, but the patient bore it badly, the face becoming very much congested from the first, and he breathed slowly, requiring some time to get him under the influence of the anæsthetic, but as it was necessary to have the patient perfectly quiet, and the surgeons being a little impatient, the chloroform was kept over the mouth and nose of the patient so persistently that he suddenly stopped breathing, when the chloroform was removed the tongue drawn out of the mouth and artificial respiration instituted, but the pulse sunk and finally ceased to beat, and we all felt great solicitude, but Dr. Osborn and Dr. Case seemed equal to the emergency, and we left the resuscitation of the patient entirely to them, while Dr. Campbell held the director well up under the pubic arch, and I made a free incision

extending from $1\frac{1}{4}$ inches above the margin of the anus to midway between the tuberosity and lower margin of the anus, and went directly into the bladder, the opening into that viscus at first being just large enough to admit my finger, I explored the stone, and then with my finger tore the opening in the direction of the left lobe of the prostate as far as I thought I dared go for fear of opening into the cellular tissue, I don't know if I went in the direction of the long axis of the lobe or whether I went through the lobe at all, I only know I mean to.

The opening at first admitted the second joint of my finger with difficulty, and after I had enlarged it, it seemed two or three times that large, so I made out the smallest diameter of the stone and seized it within my forceps, which I had introduced along my finger, and upon drawing it down to the neck of the bladder I could easily determine that the opening was not near large enough, so I let go the stone and removed my forceps and introduced a knife, and directing it with my finger I made a free incision in the supposed direction of the right lobe of the prostate, and again attempted to remove the stone, but just as I got it engaged within the neck of the bladder and was aiming to remove it without undue force, something broke and off came my forceps.

I supposed I could push it back into the bladder and get a new hold, but you can imagine my chagrin, when I found the corners of the stone square and rough, and the bladder like a maddened uterus holding the stone tight in its grasp. I have introduced the sound gently into a sensitive uterus, when it would grasp it and I would almost expect to go home without my instrument, but time will generally overcome muscular contraction, although it takes a great deal of it when we are removing a stone from the bladder, of a patient supposed to have died from chloroform under the operation.

I tried to push it back into the bladder, but could not, then I examined it carefully, with a view of grasping it again with my forceps and found its sides as slick and hard as glass, but feeling a little reckless as the efforts at resuscitation seemed fruitless, I seized the stone and withdrew it, washed out the bladder with a syringeful of water and then threw four ounces of brandy into the rectum and was rewarded by hearing some one say occasionally, "there he breathed then" and in half an hour, we had our patient laying on the bed talking to his wife about the operation, and feeling as comfortable as could be desired and unlike Lazarus of old, rather seemed to enjoy still being amongst the living.

His convalescence was speedy and he suffered from no untoward symptoms. The wound was entirely healed by the fifth week and although the bladder was contracted and thickened so I could reach its entire surface with my finger, he has now full control of the sphincter, and can retain over a pint of urine in the bladder, only having to void it once in the night.

He is in good flesh and can do a creditable day's work, which enables him to support the family to which he was a burden before the operation.

Art. 7—Extra-uterine Pregnancy.

By AND. C. KEMPER, A. M., M. D.

Read before the Cincinnati Medical Society, May 30, 1876.

I. Many of the causes assigned for extra-uterine pregnancy are either purely theoretical, or have little practical use in the treatment of the disease. Among such may be named, severe physical exertion about the time of conception, a fright during coitus, or a blow on the abdomen, sluggish and imperfect, or excessive and spasmodic erection of the Fallopian tubes, engorgement, swelling or ulceration of the mucous membrane of the Fallopian tubes, or deposits of mucus in their channels, or the destruction of their ciliated epithelium by catarrh, or their physiological incapacity by paralysis.

Other causes, which have been demonstrated on the cadaver, are of importance, with reference both to diagnosis and treatment. If the obstruction to the passage of the ovum through the Fallopian tube occur at its *os internum*, as by an intra-uterine polypus, or the retraction of the *os internum*, the extra-uterine pregnancy will most probably take place in the portion of the Fallopian tube, next the uterus, and even in its growth, insinuate itself within the fibres of the walls of the uterus.

In a majority of cases of extra-uterine pregnancy, the pregnancy has been upon the left side. In harmony with other organs situated upon that side, the left Fallopian tube has peculiar characteristics. Among these is its contiguity to the colon at its sigmoid flexure. Whether the left ovary and Fallopian tube are endowed with greater functional activity, or not (if they are the influence of the colon is increased),

this contiguity subjects the tube to displacement and compression. If then the extra-uterine pregnancy is caused by the compression of the tube by an overloaded colon, we may expect to find the embryo in the distal portion of the tube, or in the peritoneal cavity, since, if the tube is compressed its functional activity may be impaired or destroyed. If it is only impaired, the ovum may enter the fimbriated extremity, but can not pass beyond the point of compression, which must necessarily be somewhat distant from the uterus. Or if the tube is deprived of its physiological action, the ovum will not enter it, and the pregnancy will take place within the peritoneal sac.

So, too, stricture of the Fallopian tube, whether it be organic or spasmodic, one would infer from analogy, will occur most frequently in that portion of the tube which is the largest, where the mucous membrane is most extensive and redundant, which is its distal portion. In this case, for the same reasons, the pregnancy would occur in the extremity of the Fallopian tube or in the peritoneal cavity.

Adhesions may affect the ovary, or the Fallopian tube, or both. If the Fallopian tube only is affected, it will most probably be affected in its outer portion. It will require greater inflammation and more firm adhesions to incapacitate the inner half of the tube than its outer half. When there is extreme inflammation implicating the inner portion of the tube, either the tube will be wholly incapacitated, when, if extra-uterine pregnancy occur the opposite tube being physiologically intact, the pregnancy will be, as we shall see presently, within the peritoneal sac, or the inflammatory process extending by immediate contiguity to the uterus, will so bind down and incapacitate that organ by adhesions, as to produce permanent sterility by preventing the passage of spermatozoa into or through it. If the outer portion of the Fallopian tube be incapacitated by the narrowing of its calibre by inflammatory adhesions, the ovum will either fail to enter the tube, or entering, will be arrested at or before it reaches the point of constriction, and the pregnancy will be in the distal extremity of the tube, or within the peritoneal sac. If the adhesions so affect the tube that its fimbriated extremity is unable to reach and grasp the ovary, during the sexual orgasm, the ovum will fail to gain an entrance to the tube, and the pregnancy will be intra-peritoneal. It will be intra-peritoneal, also, when the ovary is prevented by inflammatory adhesions from yielding itself to the affectionate embrace of the pavilion of the tube. Where the peritoneal covering of the ovary (if it has any such

covering), is so thickened by the inflammatory process that the ripened Graafian vesicle is unable to make its way through it, there may be a partial rupture of it, insufficient for the escape of the ovum, but competent to give admission to the spermatazoon. There will then be ovarian pregnancy, and it is obvious that the tendency of such a pregnancy will be to locate itself more and more within the peritoneal sac.

Nothing perhaps within the domain of obstetrical knowledge is more interesting than the extra-uterine transmigration of spermatozoa. It seems to be acceptably established that a spermatazoon may pass through the uterus and a Fallopian tube, the other one being impervious, and cross through the peritoneal cavity to the ovary of the opposite side. In all such cases the impregnation and the pregnancy must occur within the peritoneal sac.

An ovum may enter a Fallopian tube, pass through it and the uterus into the opposite tube and there or elsewhere become impregnated. But such a meteoric ovum, like a strange woman, intensely unnatural, can have nothing predicated of it except incorrigibility. We should not probably be disappointed in our expectation, that such a wanton would assume some extreme of unmanagableness, as placenta-prævia, or intra-peritoneal pregnancy.

The lesson then which a thoughtful consideration of the causes of extra-uterine pregnancy teaches us is that the foetus will most likely be within the peritoneal membrane.

II. There are four *varieties* of extra-uterine pregnancy.

1. *Ovarian* pregnancy is denied by some. It is easy however, to apprehend its possibility. It may occur within, or on the surface of the ovary, which is situated on the surface of the broad ligament. If the rupture of the vesicle allow the ovum to partially escape from the ovary, without making its detachment as complete and immediate as is physiologically requisite, it may linger and develope on its surface. If the rupture in the vesicle precludes the exit of the ovum, whilst it permits the entrance of the spermatozoon, the pregnancy will be within the ovary. In either event, the tendency of its development will be enforced by its location and by the yieldings of its surroundings toward the interior of the peritoneal sac. So true is this, that the ovarian is by many thought to be only a subordinate class of the ventral variety.

2. The pregnancy is called *tubal* when the ovum is arrested at any point within the Fallopian tube. The Fallopian tube lies upon the superior border of the broad ligament. At its uterine extremity it penetrates the folds of that ligament to

enter the fundus of the uterus. At its ovarian extremity the fimbriae around its open mouth lie entirely within the peritoneal sac. The broad ligament is a fold of the peritoneal membrane, covering three-fourths of the anterior surface of the uterus, and extending more than an inch beyond its posterior surface on the vagina, is reflected from thence upwards on the rectum.

If the pregnancy occur in the ovarian end of the tube, it may have enough characteristics of the ovarian class to entitle it to be called "ovario-tubal," and if it exist at the uterine extremity it may take on so much of the interstitial character as to be appropriately designated "utero-tubal."

3. The *interstitial* variety, where the ovum developes in the wall of the uterus is rare. It happens chiefly in the bicornuated uterus, or as a commingling with the tubal variety in that subordinate class the "utero-tubal."

4. Strictly *ventral* pregnancy is that in which the impregnation and development of the ovum is within the peritoneal sac. This is its primary form and must be rare. But its secondary form, where the impregnation takes place in or on the ovary, or in the Fallopian tube, whilst its development is within the peritoneal sac, is doubtless the most common form of extra-uterine pregnancy.

III. The *history* of these pregnancies is *pathological* entirely. Even the fecundation of the ovum elsewhere than in its proper receptacle is disease.

The uterus despoiled of its physiological rights manifests that spoliation. It develops a decidual membrane in evidence of its just expectations. And in sympathy with the advancing pregnancy it enlarges its dimensions and bulk. There may even be a supplemental placenta formed in the uterus.

Wherever the ovum is arrested and impregnated by the spermatazoon, it begins its development. During the first two months it forms for itself the amnion, with its liquor amnii, and the chorion with its villi about its whole circumference. These villi, like Noah's dove, seek in every direction some satisfactory footing. At the end of the first month, the diameter of the ovum is, say, three quarters of an inch, at the end of the second month it has increased to say one and a half inches. If the pregnancy belong to either of the three varieties, ovarian, tubal or interstitial, its surroundings will not endure the tension of this rapid development. These surroundings have no experience and no aptitude, to adapt themselves to this strangely growing foreign body. They yield to its growth and burst. The rupture will be in the direction of the peritoneal sac. It

will be so even in the two cases we have not already considered. In the interstitial variety, whether there be malformation of the uterus, or the pregnancy occur near the *os internum* of the Fallopian tube, the tendency of enlargement and rupture will be in the direction of the least resistance, away from the solid body of the uterus and towards the cavity of the peritoneum. Even where the tumor is situated in the middle third of the Fallopian tube it will find difficulty in penetrating between the folds of the broad ligament, and will rather develop towards the peritoneal cavity. Or if a full and tense abdomen press it to develop downwards, it will most likely, instead of inserting itself between the folds of the broad ligament, cause that ligament to be folded back upon itself, carrying the ligament and the peritoneal membrane along with it into the pelvic cavity, a form of development which will present to the practitioner a case to treat, perhaps the most undesirable of all.

The nourishment of the embryo, derived from the ovum, is within these two months being exhausted, and the chorion is seeking to establish connections with the blood of the mother for richer nutrition. If the ovum is not detached from its position by the rupture of its surroundings, still the villi of the chorion will be at greatest liberty to push themselves through the rupture to form the placenta within the peritoneum. An extraordinary illustration of the villi extending in the direction of the least resistance is seen in those cases of tubal or ovario-tubal pregnancy where the villi of the chorion push through a Fallopian tube into the uterus, and form there a placenta, which is connected by the umbilical cord running through the tube with the fœtus in the abdominal cavity. In these instances the rupture of the tube does not take place until after the process of the formation of the placenta is somewhat advanced.

If the ovum is detached from its original site, it drops into the peritoneal sac, and a portion of the villi attaching themselves somewhere within that sac form the placenta, whilst the remaining villi on the circumference of the chorion atrophy.

Wherever the placenta establishes itself it enlarges. The villi of the chorion penetrate with wonderful facility not only among the abdominal organs, but into their tissues. A placenta may be attached to any or several of those organs, and to the peritoneal membrane itself. Even though the rupture of the surroundings of the ovum take place at a late period, when the villi of the chorion have located the site of the placenta within the ovary or Fallopian tube, still, after the rupture, the growing placenta will reach out and fasten itself upon the peritoneal membrane, or the organs contained in it.

Whatever may be the situation of the placenta, the organs of the mother respond to its demands for increased nutrition. This demand is emphasised about the end of the third month, after which the embryo is called the foetus, and increases from that time until the death of the foetus. Both the arteries and the veins of the mother enlarge in the neighborhood of the placenta. Indeed, the villi of the placenta, just as when it is located within the uterus, penetrate these enlarged veins of the mother, and bathe the foetal blood vessels in the pools of her blood. Within the uterus the placenta may attach itself to a small space, and derive sufficient nourishment for the foetus, because there the blood vessels are adapted, if not accustomed, to supply the extraordinary demand; but, if such a requisition be made upon the blood vessels without the uterus, they must compensate for their natural incapacity by engaging more of their number; hence, extra-uterine placentas are remarkably large.

Within the uterus the decidual membrane begins to form on the arrival of the ovum. No such welcoming protection greets it without the uterus. Nature, however, provides as best she may for a stranger in a strange land by forming about it a sac or artificial decidua. If the ovum escape directly into the peritoneal cavity it will be so small as to excite only sufficient inflammation to form an extremely delicate cyst. If, however, it has contracted adhesions to the tissues before that escape, its bulk will be such as to cause considerable, if not decided, inflammation, and the plastic material thrown out will give a pronounced texture to the envelope. This texture will be increased in density by proliferation from the parts to which it is adherent, as the ovary, broad ligament or uterus, so that the cyst may even be muscular. Blood vessels will develop themselves largely in the walls of the cyst, and its substance increase with the age of the foetus.

The rupture of the surroundings of the ovum may be so violent as to tear the chorion and amnion, and destroy the life of the embryo, or it may fail to find suitable placental attachment, and die and be absorbed; or, at a later period, the artificial decidua may be ruptured by the motions of the foetus, or external violence, or incapacity to sustain the increasing tension. This rupture, if slight, may be repaired. These slight ruptures, and the frequent circumscribed or general peritonitis resulting from them, or even the friction of the external walls of the cyst against the contents of the abdomen, creating inflammatory processes, result in firm adhesions. But, if the chorion and amnion are torn at the same time, the

fœtus will probably die, and remaining as a foreign body, cause an abscess, if the patient survives.

Escaping such accidents, and arriving at full term the fœtus dies. Curiously enough there are, at this time, expulsive efforts, and the semblance of them for long afterwards, perhaps periodical, proving how conservative nature is, whilst they often sadly perplex the diagnostician. The activity of the placenta ceasing, it gradually atrophies. The blood vessels of the mother slowly return towards their original size and functions. Undergoing some cadaveric changes, as mummification, or a conversion to adipocere, or becoming encrusted with a cretaceous deposit forming the so called "lithopædion" the fœtus may remain indefinitely, not probably without causing considerable distress to the mother, but yet admitting a more or less comfortable life. In one instance, a woman died of old age at ninety-four, having carried an extra-uterine fœtus fifty-six years. Parry reports a case of sixty-five years duration. Of sixty-nine cases reported by Campbell, where the mother died from other causes than the pregnancy, and where the fœtus was retained more than nine months and less than fifty-six years, the average time of retention was more than eleven years and three months. At any time the dead fœtus is likely to decay, and the abscess formed by its effete material seeks by inflammatory ulceration an outlet from the body. The ulceration is from within outwards, binding the tissues together as it progresses, so that the opening, when completed, admits the air only to the cavity of the sac. The opening is most frequently made through the abdominal walls, or into the rectum, uterus, bladder, vagina or stomach.

IV. The *clinical manifestations* of these pathological conditions are sometimes very emphatic, at others scarcely intelligible. There may exist the customary signs of pregnancy. But these may be so distorted as to convey little reliable information. The catamenia may be regular, or there may be profuse metrorrhagia. The most pathognomonic symptoms are the colic and partial or general peritonitis resulting from the repeated ruptures of the sac. These may be fatal even in the early months. The peritonitis may occur primarily, arising from the irritation set up by the foreign body. Or it may be secondary following after the abdominal collapse which results from the rupture of the artificial decidua, and the escape of its contents, together with quantities of blood, into the peritoneal cavity. Hemorrhage from the rupture of these sacs is often evident in the uterus and vagina. Indeed these two dangers, abdominal collapse and peritonitis, like the sword of Damocles

threaten the patients life at all times, although after the fourth or fifth month they may be less liable to happen on account of the increasing strength of the artificial sac. It is believed that a majority of cases terminate in one of these ways before the period of quickening. The motions of the child may aggravate a subacute chronic peritonitis which will impair the constitutional powers and thus cause a fatal result. The large hemorrhages of frequent metrorrhagia have a similar influence. When the abscess is formed septicæmia may arise and end life quickly or slowly. Or the constitution may suffer little impairment.

V. The *diagnosis* may be so plain as to be read by the running fool, or it may confound the wisdom of the wise. A tumor may possibly be felt in the early months, but it will be scarcely possible to make positive assertions before the foetal heart is heard. The sounds of the foetal heart assure us that there is a foetus somewhere. The motions of the child add their testimony during the same period. We may then satisfy ourselves that the pregnancy is not uterine, if we can find the uterus, and deem it safe to explore its cavity. And when we have located the pregnancy outside of the uterus, there is no reliable means of assigning it to either of the varieties.

After the death of the foetus the history gives cumulative evidence, if it can be obtained and carefully weighed. Now too palpation has some of its most advantageous uses. The gradual absorption of more or less of the liquor amnii, the probable emaciation of the patient, the lowering of the foetus into the pelvic cavity, either or all, may give palpation the opportunity of some precision. Nevertheless, palpation alone, is liable to serious error, as when it mistakes the branching of a fibrous tumor for the limb of a foetus.

VI. It frequently occurs in the history of extra-uterine pregnancy that the most prominent indication of *treatment* is the sustentation of the vigor of the patient by tonics and regimen.

The colic, the abdominal collapse, and the peritonitis are to be alleviated by ordinary procedures.

The objections to the performance of gastrotomy for the relief of collapse, resulting from the effusion of blood into the peritoneal cavity after rupture of the cyst are, the impossibility of accurate diagnosis, the liability of being compelled to perform the most formidable operation, even the extirpation of the uterus and ovaries, the performance of this operation, under the capital disadvantages of the recent immense shock of the patient, the results of that shock being

necessarily increased by the operation, and the destruction of all resiliency to recover by the loss of blood, which also increases the liability to septicæmia, the imminency of fatal peritonitis after rupture in any event, and the great increase of that jeopardy by the incisions and unusually manifold manipulations of the operation, and the probable impossibility of arresting the hemorrhage. Indeed, it would seem as if when death has struck the unfortunate victim, art can do nothing to avert the blow, lest, haply in her efforts to do so, she may appear to be the procuress of death. Whilst, if death from rupture of the cyst is only imminent, art, by heroic self-sufficiency, will destroy the life which nature is competent to preserve, if art would nobly assist her by an active expectancy. No one has yet performed gastrotomy under these circumstances; and there will be something more than courage in the character of him who first attempts it.

Dr. John S. Parry, in his recent, otherwise most excellent, monograph on this subject, says, that "Peritonitis so rarely follows rupture of an extra-uterine cyst, that the possibility of its occurrence need not be taken into consideration in the decision of any questions relating either to prognosis or to treatment;" but fails to support the assertion by either reason or facts, whilst his book is replete with both arguments and cases contradictory of his remarkable dogma so at variance with the experience of the profession for centuries. Indeed, the chronic subacute peritonitis existing, apparently by necessity, makes the violent acute attack liable to occur even upon slight provocation.

If a satisfactory diagnosis can be made prior to quickening, efforts should be made to destroy the life of the embryo. All medication will most probably fail of this result, unless it be the injection of an opiate into the cyst. The evacuation of the amniotic liquid by a fine trocar or aspirator needle, galvano-puncture, and the electric shock of the tumor, or its simple puncture by exciting inflammation, will produce the desired result. These methods are not, however, without serious danger to life. The operation is usually performed through the vagina, and is equally applicable to small ovarian cysts.

The period from quickening to full term is one of comparative quiescence, during which operative interference is not usually called for. Even if it were, gastrotomy is inadmissible.

When labor supervenes, the life of the mother is placed in imminent peril. This peril, however, has been safely passed by numerous individuals, and is not so great as that from

hemorrhage and collapse in the early months. Gastrotomy, at this time, almost necessarily sacrifices the life of the mother. If, then, the preservation of the mother's life is hopeless, gastrotomy may perhaps save the life of the child.

After the death of the foetus, or after term, so long as tolerance of the foreign body can be so far secured as to be compatible with life, all operative interference should be sedulously avoided. When nature has chosen the channel of elimination, and designated it by the pointing of an abscess in the abdominal walls—vagina, or elsewhere—if there is any necessity of hastening the processes of nature, the abscess may be opened, provided the tissues are sufficiently agglutinated at the point of opening to prevent the access of air or acrid debris into the peritoneal membrane. No such emergency existing, it is preferable to allow the abscess to open itself, when free dilatation of the opening can be made, and the debris extracted, as may be indicated.

When it is necessary to assume the alternative of gastrotomy, the placenta should be allowed to remain, and the residue of the umbilical cord brought out at an angle of the wound. In making the abdominal section in gastrotomy, there is great advantage in gaining access to, manipulating and extracting the tumor. By the vaginal section there can be no access to the tumor, little, if any, manipulation of it, and great difficulty, if not impossibility, of extracting it. Fatal peritonitis is equally as liable to follow the vaginal as the abdominal section.

Art. 8—Report of the Coincident Progression of more than one Contagious Disease in the same Individual.

Read before the Bellefontaine Medical Society, and ordered to be printed.

By THOMAS L. WRIGHT, M. D., of Bellefontaine.

Scarlatina, measles, and mumps have been prevailing epidemically in Logan County, Ohio, during the months of April and May of the present year. Each disease was well marked, and its characteristics were fully recognized. The epidemics have displayed their symptoms in a benignant and mild form, in the majority of cases.

A singular instance of commingled diseases has presented itself to my notice, in connection with the coincident prevalence of the three specific maladies named.

A little boy, four years old, was attacked with scarlatina. He lived in a house adjoining one, in which was a child then convalescing from scarlet fever. There appeared no room to doubt the nature of the eruption, when it was first observed.

On the second day of the eruption, I was so impressed by its measly appearance, and by the presence of other prominent symptoms of measles, that I frankly told the parents that I had been mistaken, and that their child was suffering with measles. This did not seem unlikely, because there were cases of measles in the neighborhood.

The next evening I took by accident an old physician with me to see this case; but without thinking of anything strange, or remarkable in it. I saw that the measly appearance of the eruption was gone, and the solid efflorescence of scarlatina again prevailed. Without acquainting my medical friend of what had passed in relation to the case, I asked him his opinion as to what was the matter with the child. He replied in some surprise, that it was a case of scarlatina, beyond doubt. It somewhat annoyed me to think I could be so careless an observer. But the very next day, my astonishment was thoroughly aroused, when the catarrhal symptoms were again predominant, and the isolated patches of measly eruption, and the white healthy looking skin between these patches, were obtrusively present.

The scarlet fever finally prevailed; and the eruption ended with the fading of a scarlatinous exanthema, as late as the eleventh day of the efflorescence.

At some time previously to the middle of the eruptive period (the precise day I am unable to give), there appeared a large swelling under and before the right ear. This presented so exactly the appearance of mumps, a disease I was examining and treating every day, that I at once expressed the opinion that it was mumps; and not an intensification of the moderate scarlatinous swelling, that had previously attracted attention and treatment. The mother remarks that he had been playing with little Harry A——, who was then suffering from mumps; and whom I was, in fact, myself, treating for that malady. The patient was quite stupid and somnolent, but not delirious, for thirty-six hours. This I attributed to pressure of the tumor on the jugular vein. The tumor abated somewhat rapidly, the patient becoming relieved from his stupor at the same time. After twenty-four hours, a precisely

similar enlargement affected the left parotid, followed by the same comatose symptoms, and the same rather rapid disappearance of the swelling. There was no return of this swelling on either side, nor was there any special aggravation of the general symptoms during the period of intermescence, excepting the stupor.

There were two concurrant circumstances in the relations of this patient, which will serve, in a degree, to illustrate the whole subject, and confirm in a negative way the accuracy of the description.

1. The youngest child in the family, 18 months old, passed through a kind of sickness very like that which affected the little boy. There were at times marked signs of scarlatina, while at other times, there were more prominent symptoms of measles. This child had nothing like mumps. She had not been directly exposed to parotitis as her brother had. This patient had a rash about eight days; and, altogether, her eruptive affections, seemed more co-existent, than alternate.

2. The oldest child in the family, a lad of eight years, had scarlatina five years ago. Some days after the others were taken sick, he broke out with measles. His case was clear, distinct, and undoubted; without the slightest sign of scarlatinous, or other complication; and he was well, and out at play, before either of the others was up.

The somewhat garrulous style I have adopted in the above report is intentional. I wish, as much as may be, to take the reader with me, and see this group of patients for himself, for I am conscious that the nature of the facts detailed, might arouse a suspicion that there was a straining for effect, or a disposition to propound paradoxes. There can be nothing in the report of a case, more reprehensible, than the habit of excessive refinement, or subtile distinction; which most sensibly detracts from the true worth of medical observation; and, which also, indeed, taints the purity of scientific facts.

With a remark or two concerning the medical literature, bearing on my subject, I will close. The coincident progression of measles and small-pox in the same patient has long been known. Chapman (lectures on eruptive fevers, page 120) remarks: "Generally it has happened, that where the two affections co-existed, measles in a short time acquired the ascendancy, and, after running its course, small-pox was redeveloped." This, also, is the testimony of Montgomery; (Cyc. Pract. Med., Vol. IV, page 52), "generally speaking, the rubeolous contagion, if received into the system, previous to that of variola, has the power of suspending the variolous action, till

the measles have run their course." This was about the fact in the case of the little boy above described. The two epidemical maladies seemed to contend, and, alternately, were predominant; yet the measles finished its course in advance of the scarlatina, although the latter, first made its appearance.

The rule, however, seems to be, whenever measles and variola are combined, that they run their course absolutely simultaneously. Mr. Russell described two cases in Aleppo, "in which the two eruptions ran their course together, in the same individuals, when the diseases were epidemic in 1765." The surprising and decisive fact is related by Dr. King, "that he inoculated in the year 1769, with variolous matter, forty-three children in the Foundling Hospital of Dublin, of whom sixteen sickened with measles five days afterward, and the small-pox appeared in due season, without apparently being at all influenced by the circumstance." There is a greater affinity between variola and measles than there is between measles and scarlatina. Still, in view of the history of measles, as associated with variola, it is not perhaps incredible, that it may become associated with scarlatina also, where the two diseases rage epidemically in the same community. Nor does it seem beyond the scope of reason to believe that mumps may, under favorable auspices, be conjoined therewith. Facts, at any rate, are more potent than reasoning in medical investigations.

Translations.

Absinthe and Absinthine—Their Properties—Association with Iron.

The tonic and stimulating properties of absinthe seem to have been entirely forgotten; the physician rarely employs it, and in that respect we believe he is wrong. Its employment in certain conditions, is, perhaps, the best means of combating atony of the digestive passages; more especially when associated with reconstituants can it render the best services. Facilitating nutrition, it augments the absorption of the medicament associated with it. It is true, that the prolonged use of absinthe in the form of wine, tincture, infusion, or syrup is not without its inconveniences, due to the extremely

bitter and disagreeable savor, and particularly because the vehicle generally retains the essence of the plant, which essence possesses very irritating properties, producing, almost always, headache, vertigo and nervous disturbances.

The "Extract of Absinthe" does not excite these troubles; but, as it is prepared in the pharmacies, it is far from possessing all the virtues of the plant.

Absinthe owes its stimulating properties to its bitter principle absinthine, which cannot be entirely obtained except by alcohol, and the codex directs water in the preparation of the extract.

We are positive that the extract of absinthe, carefully prepared with alcohol, and containing therefore all the absinthine of the plant, possesses stimulating and tonic properties to a much greater degree than the aqueous extract directed by the codex; and that it contains no more than the latter of the essence of absinthe, which is removed in the course of the evaporation of the alcohol, to leave, finally, an aqueous extract charged with all the active principles, and the action of which becomes more particularly remarkable when associated with Iron.

We have said that under the influence of absinthe the patients become better nourished. The iron, easily absorbed, passes rapidly into the impoverished blood, restores its plasticity, diminishes the sanguineous congestion of the glands, and moderates the secretions. In our opinion, few ferruginous preparations are comparable to this, both as regards surity and rapidity of action. In cases of very severe anemia, regarded as desperate, and that had resisted all other medication, we have seen complete cure result in a space of five or six weeks. I have also observed in cases where the stomach was very much debilitated, that whilst the ferruginous preparations could not be borne, that the Iron united with the extract of absinthe was, under these same circumstances, very well and very easily tolerated.

The iron should always be used in the state of glittering filings, very pure, and prepared with alcohol, according to the German process. The preparation of the absinthe extract must also undergo a modification; as we have shown above, the extract prepared in the manner here indicated, is definitively through the evaporation of the alcohol an aqueous extract.*

It is, however, indispensable that the extract should not contain the least quantity of water, for as it is impossible to give it otherwise than in pill form, the Iron would inevitably

* Mr. Figuet, Pharmacist, cor. Court and Vine, has prepared some extract according to this formula :

be oxidised by coming in contact with the water contained in the extract.

I have convinced myself that in the pills of iron and absinthe prepared after this process, the iron, even after months remained in the same bright condition without any alteration. Each of these pills contains 50 *centigrammes of pure iron. Under these circumstances we can administer the iron, in large doses (40 to 50 centigrammes, per day) without the least inconvenience. These large doses have even seemed necessary in certain grave cases.

It is necessary to banish, during the treatment, as much as possible, the use of sour food, as salads, sorrel, sour fruits, etc., that possess the properties of transforming the iron into salts; (oxalates citrates, etc.,) which are decidedly not so assimilable; this is proven by the fact that sometimes when this precaution is not taken cramps are produced.—(*Dr. E. Faury, in Progres Medicales.*)

***Antidyspeptic Mixture.*—(GREEN.)**

R \bar{y} . Magnes. Carbon,	8 grammes.†	=	5 ii.
Pulv. Rhei.,	6 “	=	5 iss.
Tinct. Rhei.,	25 “	=	{ 5 vi. $\frac{1}{4}$.
Syr. Simpl.,	25 “	=	
Aq. Ment. Piper.	100 “	=	5 iii. 5i.

M.

Sig. dose, one tablespoonful. In dyspepsia with flatulence and heart burn.—(*Progres Medicales.*)

Jaborandi in Pleuritic Effusions—A Case rebellious against all Treatment with Diuretics—Use of Jaborandi—Success.

Dr. Lequesne, of Besace, reports the following very instructive case in the Journal of the society of Cæn and Calvados. On the 6th of December, I was requested to visit M. X., with my friend Dr. Lair. I found the patient in the eighth day of a pneumonia, with symptoms all favorable. I left, persuaded that he would soon be well.

Two days after, the patient was suddenly taken very ill. A considerable pleuritic effusion had taken place on the left side. On the 30th of December, I was called again to see him. Dr. L., had meanwhile treated him with diuretics and the

* About $7\frac{1}{2}$ grains.—One Centigramme, about $\frac{1}{4}$ grain.

† 1 gramme is equal to $15\frac{1}{2}$ grains

revulsives usually employed. I found him in the following condition: pulse, 120; no thirst; complete anorexia; tongue large and moist; a dry spasmodic cough with beady, frothy expectoration; right side healthy; heart, sound; on the left side want of elasticity and absolute dulness over the whole region. Absence of vesicular murmur; marked tubular breathing; very pronounced aegophony. In a word all symptoms of an extensive pleuritic effusion.

Besides the large vesicatories we determined to apply the tincture of iodine. Being used to alcoholic stimulants we allowed him some wine.

January 8th. The patient has now his seventh vesicatory; we have employed all the diuretic wines, charité, Trousseau, etc., the effusion has not diminished in the least. Skin dry, parchment like. Pulse all the time 120.

We determined to use the Jaborandi, to promote the disappearance of the effusion and to re-establish the sudorific functions of the skin. On the 11th of January, we gave the patient a warm and sweetened infusion of jaborandi, 4 grammes, 50 centigrammes (equal to about $69\frac{1}{2}$ grains), in a glass of water. The effect is thus described by the patient. "Ten minutes afterwards I felt the sweat rolling down my forehead and face in great drops, then over the whole body. The infusion has no bad taste. For three hours the perspiration was so abundant that I was compelled to change shirts three times, and I looked as if drawn out of a pond. At the same time that I began to perspire, I felt much mucus in my mouth, and the saliva ran continually. The abundance of the mucus and saliva was such, that it caused me some nausea, followed by one or two vomitings. After three and one-half to four hours all the manifestations disappeared, and I felt no other inconvenience except a slight swooning sensation which soon passed over."

On the 14th, three days after the administration of the jaborandi, I again saw the patient. The skin was now moist and fresh; the cadaveric appearance was gone; the pulse still frequent, 116 to 120. Auscultation; abundant subcrepitant rales in the superior two-thirds; the lung has again become permeable. The inferior third has still all the symptoms above described of pleuritic effusion. We therefore determined to give a second dose of jaborandi. It was given on the 18th.

The same effects were produced as before; three shirts being completely saturated with perspiration; the same abundant salivation; but little bilious vomiting. Total disappearance of the effusion.

The revulsives and diuretics had been stopped on the eighth when we determined to try the jaborandi.

The jaborandi employed was the real "pilocarpus pinnatus" of Dr. Coutinho having been obtained from the laboratory of Prof. Vulpian.—(*Trib. Medical.*)

Treatment of Coryza.

The following formula has been devised and extensively used by Dr. Ferrier in the treatment of coryza.

R \bar{y} . Bismuth Sub. Nitr., 5 vi, grs. xii,
 Morphia Muriat, grs. ij, $\frac{3}{4}$,
 Pulv. G. Acac, 5 ij,
 M. ft Pulv. (*Progr. Medic. Lancet.*)

Pills Against Chronic Congestion of the Spinal Axis.

R \bar{y} . Quinea. Sulphat,
 Ergotine, $\frac{3}{4}$ 5 ctgrs.= (about $\frac{3}{4}$ gr.
 Valerianate of Ammonia, crystallized, 10 ctgrs.= (1 $\frac{1}{2}$ grs.
 M. ft. Pillul. No. i.

Two to four of these pills to be taken during the 24 hours, just at meal time. To this medication should be added, dry cupping, the application of the hot iron along the length of the spine. Vapor baths and douches, simple and scotch douches alternately.—(*Bord. Medical.*)

Diseases of the Skin.

Therapeutic Notes Gathered at the Clinic for Cutaneous Diseases of Prof. Hardy, at the Hospital St. Louis. By Dr. E. Ory.

(Dr. Ory, ancien Interne of Hospitals and one of the pupils of Prof. Hardy, proposes to give in a series of papers the rational treatment of these maladies as expounded by that eminent clinician at his clinics in the Hospital St. Louis. The papers being decidedly practical and the subject one now attracting great interest, we have determined to lay them before the readers of the LANCET AND OBSERVER—*Translat.*)

Parasitic Affections.

Parasites, both animal and vegetable, by their presence on the human body, cause disorders which persist, for a long time, and which, under certain circumstances, may even become grave. So soon, therefore, as the parasitic nature of the affection has been determined, the first care of the physician should be (with but few exceptions), to destroy the parasite.

a. Vegetable Parasites.

a. *The Tricophyte*, Tricophyton—In this category M. Hardy groups three diseases, which formerly were separately studied, but whose identity he recognized. They are *Sycosis*; *Herpes tonsurans* and *Herpes circinnatus*. These three affections have one common origin, a *champignon* (fungus), developing in the beard, in the hair of the head, or in parts covered with down. This is the *Trycophyton*.

In all of these three affections, the indication is to destroy the parasite as quickly as possible, for the malady spreads daily and contagion is no doubt to be feared; moreover not alone that one and the same person may be afflicted by two diseases of this group, but as was observed in one case, an infant with herpes tonsurans, may cause in the mother, who combs it, a herpes circinnatus, and she again excite in the husband, a most obstinate sycosis. The patient should, therefore, be isolated as soon as possible, in these three affections, and the treatment suitable for each disease instituted.

1. *Herpes Tonsurans*. This malady, which, is of frequent occurrence, may by its rapid extension cause a complete falling out of the hair. The seat of the parasite is in the interior of the hair; we must, therefore, commence with *depilation*. This trifling operation should be made with care, as the hair already diseased, break easily, and to be efficacious should be extended a little beyond the border of the tonsure. Here it is somewhat painful. Immediately, thereafter, the part freshly depilated should be washed with a solution of bichloride of mercury :

R̄. Hydrarg. bichlorid sublimat, grs. xvss.
 Ag. tontan, 5xviss.
 M.

To this solution (1 to 500), a little alcohol to facilitate the solution of the sublimate may be added. To saturate the diseased part, the application had better be made with a brush; the liquor penetrating the patulous orifices of the hair follicles, destroys the spores that may be found there. To complete the treatment, inunctions should be made morning and evening with parasiticide ointment, as for instance, one of Turpeth's mineral :

R̄. Cold cream or axungia, 5i.
 Turpeth's mineral, 5ss.
 Gum camphor, grs. xv.
 M. ft. Ungt.

The use of this ointment should be continued until the hair begin to grow out again. It is only after six months or a year that the hair resumes its primitive aspect. It is well to remember that depilation does not destroy the hair; we can and ought to advise that this be renewed, until the cure is complete—otherwise there may be a relapse.

2. *Herpes circinnatus*. The tricophyton in developing in other parts, bears, it is true, a particular aspect, but as in the preceding cases presents the fact of a rapid centrifugal extension. Here it is the parts of the body covered with down that are attacked—the face in children, the arms, the back, the hands. Identity of nature has led to identity in treatment—at least in principle. In this disease, depilation, which at times is almost impossible, is happily not indispensable, and it suffices for the destruction of the parasite, that innuitions be made with an ointment of Turpeth's mineral, 1 part to 30—Or perhaps still better to use the following ointment:

Ry. Axung.	5i.
Sulphur,	grs. xv. to xxii.
Potass. Subcarb.	grs. iij. to viij.
M. ft. Pomad.	

Lotions of bichloride of mercury, or carbolized ointments, give equally good results.

3. *Sycosis*. The trycophyton, developing in the hair of the beard, causes more serious affections; the disease then bears the name of sycosis; contagion is the cause of the malady, and very frequently the patient seems to have contracted the disease from a barber whilst having himself shaved. Proper hygiene, cleanliness, isolation, are the preventatives; depilation at the diseased points and a little beyond should be made as soon as the inflammatory phenomena have been abated by emollient applications, cataplasms of bran, vapor baths; then by mild purgatives, as derivatives acting on the intestinal tube. Depilation is generally not difficult in this malady. It should therefore be thoroughly made before resorting to lotions of sublimate or innuitions with parasiticide ointments of copper, sulphur, or mercury.

The exact knowledge of the parasitic nature of these three maladies, explains the cures that have followed this methodic treatment; and failures were inevitable as long as physicians contented themselves with prescribing, syrups, depuratives, tonics, etc. When the champignon develops itself more particularly in the poorer class, in subjects badly nourished, sulphur baths, reconstituants, may become useful adjuvants in the parasiticide medication.

b. Tinea Pelade, (Porrigo Decalvans.) Another champignon, the microsporon Audouini, causes a falling out of the hair and the affection described under the name of tinea pelade. (1) Three stages of the disease have been recognized; in the first two stages of the affection, one can count on a cure, and on seeing the hair grow again as beautiful as before. Here again depilation and the parasiticide ointments are the treatment. Depilation is however, in this disease sometimes very difficult, the hair breaking easily under the pincet. As in other diseases, the hair should be taken out a little beyond the border of the disease and the procedure repeated from time to time. If that is impossible, it is sufficient to shave the surface before applying the lotions of sublimate.

The importance of early intervention is very considerable, for if the champignon be not destroyed, the disease will spread in size; furthermore if it attain the third stage, the hair having completely disappeared, the discoloration becomes persistent and the atrophy of the hairy scalp brings with it an irremediable alopecia—(baldness.)

A spontaneous cure must therefore not be counted on, and more if any constitutional symptoms be present (as cause or effect of the disease,) they must be met by proper treatment, reconstituants and tonics. Finally it must be borne in mind that the disease is contagious and that, therefore, the individual should be isolated.

c Tinea Favosa. The “achorion schœnleinii” is the parasite that cause the malady described as tinea favosa, (Favus). The gravity of the affection and its contagiousness demand that the patient be isolated. Treatment is the more efficacious, if applied at the commencement of the invasion before atrophy of the hairy scalp, before the destruction of the hair follicles. The treatment by the *Calotte*, (2) is now replaced by the less painful method of depilation, first applied by Drs. Bazin and Hardy, at the Dispensary of the Hospital St. Louis, since when the treatment, said to be, of the brothers Mahon, has been abandoned. This is the plan of treatment to which patients suffering with tinea are subjected to—first, emollient applications, to remove the crusts of the favus and

1. M. Horand in a recent article (Arch. De Dermatol, p. 7, No. 1,) does not admit the parasitic nature of the pelade; he believes it due to a trouble in nutrition and prescribes substances capable of exciting the vitality of the hairy scalp, especially Croton oil, (locally. *Tran.*)

2. (Calotte an adhesive plaster applied to the head of a person, suffering with this disease, after the hair has been shaved off; the plaster is then pulled suddenly and violently off, to remove the bulbs of the hair—[*Dunghlison Medic. Diction.*]

impetigo; at the same time, tonics to improve the general condition.

After several days the hair are cut short, then by means of a toothed forceps, the hair are removed one by one, at several sittings, to spare the patient from too much pain.

Each depilation should be followed immediately by the application of sublimate lotion, with sponge or brush, allowing the paratide liquid to penetrate into the still open hair follicles.

These lotions should be applied morning and evening for 8 days; after that we should resort to ointments of sulphur or mercury, the formula for which have been given above—or as example the following:

Sulphur,	5ss.
Axungia,	5i.

M. Bazin prefers the ointment of Turpeth's.

Mineral,	grs. viiss.
Axungia,	5i.

It must be recollected that one depilation is rarely sufficient, and, also, that the champignon of favus may develope in other parts besides the hairy scalp, as under the nails for example.

d Crasse parasites. (2). Often described under the name of pityriasis versicolor, an affection of but slight import, in which a parasite known as the microsporon furfur is found; it has a tendency to relapse, but generally yields very easily to proper remedial measures.

The preparations of sulphur in the form of baths, or better still of ointments, are the most employed. Here a formula:

Axungia,	5i.
Sulphur sublimat,	5ss.
M.	

Oxygenated ointments or those with nitrates, or better baths of sublimate, are employed with great advantage in this affection—an affection that, according to M. H., bears greater resemblance to a dartrous than to a parasitic affection.

(2). The word *crasse*, meaning dirt or impurity, literally parasitic dust.

Proceedings of Societies.

CINCINNATI MEDICAL SOCIETY.

The Society met May 2nd, 1876, Dr. Comegys in the chair.

Dr. Mackenzie said, in regard to the case reported by Dr. Murphy, at the last meeting that he had made a post-mortem examination and found the liver of normal size and consistence, and he found no impediment to the passage of bile from gall-bladder into the duodenum. All the organs seemed to be in a natural condition, except that they were tinged with bile. The brain and meninges were perfectly healthy. He could not account for the symptoms except on the theory that there had been some obstruction to the passage of bile, probably due to congestion.

Dr. Murphy said he had been much puzzled by this case, on percussion the liver dullness did not appear to extend over $1\frac{3}{4}$ or 2 inch. The child presented all the symptoms of brain lesion. It died of blood-poisoning. The day before its death it passed a quantity of black bile indicating that the obstruction had been removed.

Dr. C. P. Judkins reported a case in which he operated for stricture of rectum. The patient a colored prostitute, had been treated by Dr. Divan for recto-vaginal fistula. In operating for this he found a stricture of the rectum. Attempts have been made to dilate this with bougies but they were not successful. The patient denied having had syphilis but it is probable that she had had that disease. After Dr. Divan's death the patient came under Dr. Judkins care, and two weeks ago he performed the operation of colotomy.

The hygienic surroundings of the patient were not good, and she was not well cared for. A double pneumonia developed and on the 8th day after the operation she died.

On post-mortem he found gray hepatization of right lung, and partial consolidation of left lung. The bowel was found adherent to the edges of the wound, The stricture was so small that it was with difficulty that a probe could be passed. There was no peritoneal inflammation.

Dr. Comegys reported a case of congestion of the brain which he had under his care. A man about 30 years old, of bilio-sanguin temperament. Dr. C. found him on Friday morning in a condition of almost unconsciousness, with a feeble pulse about 90 per minute, respiration 24. He complained of fullness of head; his pupils very much contracted: his skin cool, temperature not noted. At his evening visit he found it 101° . He had been for a week or two troubled with unpleasant dreams. On Thursday evening he returned from his office complaining of feeling very tired. That night he was kept awake a great deal by the fretfulness of a sick child. On Friday

morning he went to his office, but being unable to attend to business he was taken home and Dr. C. summoned. A cathartic of calomel and jalap was prescribed, cups applied to the nape of the neck and hot mustard foot baths were used.

In the evening he found the symptoms more alarming. The pulse and respiration were irregular; there was spasmodic action of the fingers of right hand, occasionally muscular movements about the shoulders, more marked on the right side than on the left.

Deeming it necessary to take more active measures, twelve leeches were applied to the temples, a turpentine enema was given, and five grains of ergotine were injected into the arm.

The next morning Dr. Mussey saw the case with Dr. C. The bowels had been moved and he was more conscious. There was no change in temperature or respiration; the spasmodic action had ceased, but he could not speak intelligibly. The ergotine was continued, $2\frac{1}{2}$ grains being injected, and ice was applied to the head. During that day there was retention of urine, and in the evening he was catheterized. He was then more conscious, but there were marked symptoms of aphasia. Pupils became more dilated. There was no twitching of the muscles of the face, no permanent strabismus.

In this and another case which he had treated he was satisfied of the marked effect of ergot in allaying delirium.

Dr. Illoway asked whether ergot had any specific action on the brain or merely controlled the delirium by its action on the circulatory system.

Dr. Comegys thought it due to the action of the ergot on the middle coat of the arteries, diminishing the size of the vessels and regulating the supply of blood to the brain.

Dr. Zenner said a case showing the effect of ergot in controlling cerebral circulation, had recently been under his care, a case of brain lesion of two years standing, in which there was sleeplessness. Fifty grains of bromide of potassim and twenty of chloral had but little influence. Three weeks ago he began the administration of fl. ext. ergot in half drachm doses and its effect has been more marked than that of the bromide and chloral.

Dr. Comegys said in regard to the value of leeches in cases of cerebral trouble in children, he had seen marked effect from the application of one leech to the temple. In one case which came to his mind, that of a child that had a diarrhoea, was feverish and fretful, and had not slept during the night, the application of one leech was followed by a sleep of $4\frac{1}{2}$ hours, from which time the recovery seemed to date.

Dr. Illoway thought disappointment in the use of leeches, sometimes resulted from the fact that not enough were applied. A case illustrating this was given.

Dr. Holdt said that where it was desired to reduce the amount of blood in the brain, it may sometimes be speedily accomplished by hot nitro-muriatic acid foot-baths. Two oz. of the acid to a

bath. The effect is so marked that syncope may occur. Hence he always directs that some person must be present with the patient during their use. A patient of his, who is liable to attacks of cerebral congestion, is always promptly relieved by such baths.

The society met May 9, 1876, Dr. Taylor, Vice President, presiding.

Dr. Taylor presented for inspection a specimen, which was handed to him while on his way to the society—a parasite which had been passed after the administration of a cathartic. It resembled the parasite sometimes found in the gall-bladder—*distoma hepaticum*, or liver fluke, one of the rarest parasites found in the human body. He promised a fuller report on it at a subsequent meeting.

Dr. Mackenzie presented pathological specimens, consisting of heart and kidneys, removed from the body of a man who died in the Cincinnati Hospital a week before. The patient had been under Dr. M's care for a few days, while in attendance on the ward during Dr. Carson's absence. He, at that time, had dropsy and albuminuria. There was a double murmur, heard most distinctly at the right of the sternum, and which was transmitted along the vessels.

Patient suffered from dyspnœa when under Dr. M's care, but for a few days preceding his death he had not seen him. He had no doubt this symptom increased.

The specimens, in connection with the history, were very interesting. The heart weighed 28 oz. There was a condition of the aortic valves which incapacitated them from closing the aortic opening. The mitral orifice was narrowed in consequence of the two cusps growing together along part of their extent.

One kidney weighed 9 oz., the other only 4 oz. In the upper part of the larger was found a cyst two inches in diameter, containing a transparent fluid, and a beautiful mulberry calculus $\frac{1}{2}$ inch in diameter. He thought the cyst was formed by the gradual closure of a duct—the secreting structure not being immediately destroyed. The kidney structure in other parts of the organ does not seem to be affected. The smaller kidney presents a well-marked example of granular kidney. Dr. M. thought the disease of the heart secondary to the kidney disease, the latter producing a condition of blood which seems to be poisonous to the serious structures. The murmur, he thought, was due to the condition of the semilunar valves.

Dr. Carson thought this not the correct explanation. He believed the murmur was mitral.

Dr. Mackenzie said the murmur was systolic, not pre-systolic, hence, not due to the condition of the mitral valves.

The Society met May 16, 1876, Dr. Comegys presiding.

Dr. Murphy said he was called a short time ago to see a man aged about 60 years, a railroad contractor, who has been in the habit of drinking occasionally to excess. He presented a palor somewhat characteristic of intemperance. There was some anasarca of lower extremities. The liver was very much enlarged, extending nearly three inches below its natural boundary. There was no ascites, heart sounds normal. The urine was loaded with albumen. Digitalis and acetate of potass were prescribed, and caused an increase in the flow of urine.

On last Tuesday he was called and found him just coming out of a convulsion. He had had three before that. They continued until next morning, when he died.

Dr. Murphy also reported a case which was very interesting on account of the unusual effect of ergot.

On Monday morning he was called to see a lady who had an abortion at about the fourth month, she had had nine pregnancies, and this was the second abortion. The evening before she had some discharge of blood. She slept well during the night, but on rising the fœtus and considerable blood escaped. There was some hemorrhage when Dr. M. arrived, and the os was about the size of a silver dollar. A teaspoonful of fl. ext. of ergot, which she had in the house, was given. Forty minutes later he gave her another teaspoonful of the same preparation. She suddenly grew pale, the pulse fell to 60, and she complained of numbness of her arms. Her hands and feet were cold.

The vagina had been tightly plugged, so that there was no escape of blood. The pulse remained feeble, and the heart sounds could scarcely be heard. Whisky and carbonate of ammonia were freely given. An hour later she had reacted, but had no uterine pains. Thinking the medicine which she had taken might not have been ergot alone, Dr. M. gave her a teaspoonful of fl. ext. ergot, which he had taken with him. The same depressed condition immediately reappeared. No hemorrhage was visible. Dr. Taylor was then called in, both agreed that the depression was the result of the ergot. The stimulants were freely administered, and she finally rallied.

The unpleasant symptoms in this case Dr. M. thought were caused by the ergot. The patient had a hemorrhagic tendency after labors. There was no pain during the depression. There was sleepiness, but inability to sleep.

The medicine first administered proved, on examination, to be a good article of fl. ext. ergot.

Dr. Comegys asked what was the cause of hypertrophy of liver in the case first reported.

Dr. Murphy said he did not know. There was no heart trouble; no ascites. There was some anasarca. The convulsions were attributable to uræmic poisoning.

Dr. Mackenzie said it was unquestionably a case of albuminuria from Bright's disease. Hypertrophy of liver is frequently of ob-

scure origin. He reported a case of albuminuria with a diminished amount of urine. The patient, a female, had taken digitalis and elaterine before Dr. Mackenzie saw her, but they always made her sick. Comp'd jalap powder did no good. Tinct. ferri mur. and acet. potass. were given. The urine increased in quantity and she improved. Soon after she got worse again, and convulsions, with complete coma supervened. Croton oil was given, but it was vomited up immediately. The next morning she had recovered consciousness. She continued conscious during the succeeding week, but eventually died in a convulsion. This is one of the few cases in which patients having uræmic convulsions and coma recover consciousness.

Dr. Carson said, in regard to the second case reported by Dr. Murphy, he had known ergot to be taken in half ounce doses. It sometimes produced tingling, and lowered the rate of the pulse. If ergot acts by diminishing the amount of blood flowing through the smaller blood vessels its tendency would be to produce a temporary anæmia of the nervous centers.

The Society met May 23d, 1876, Dr. Comegys presiding. The minutes were read.

Dr. A. M. Brown was introduced to the Society, and signed the constitution.

Dr. Mackenzie presented some pathological specimens from a patient who died recently in Dr. Holdt's ward at the Cincinnati Hospital, of malignant disease of pyloric portion of the stomach. The disease had involved the stomach for a space of four inches in diameter, partially occluding the pylorus. The mucous membrane was ulcerated. Patient died of exhaustion, from inability to properly digest food.

Two nodules were found in the liver, presenting the same appearance as the diseased portion of the stomach.

The interest, however, which attached to the case was in the microscopic appearance. It is an uncommon specimen of cylindrical epithelioma. The growth was dendritic in character. To the naked eye it does not present the appearance of a cauliflower growth, but the microscope shows it to be such. The growth in the liver presents the same appearance. Microscopic specimens from liver and stomach were shown.

Dr. Holdt said the case presented the common symptoms of carcinomatous stomach, vomiting of a chocolate-colored fluid, etc. The tumor could be easily felt, the patient being emaciated, and the abdominal parietes relaxed.

Dr. Comegys asked Dr. Mackenzie his theory as to the development of the mass in the liver; from what tissue it first developed there. It seemed to him that its starting point must have been from the basement membrane of the minute portal vessels from

which the endothelia arise, because the morbid structural appearances are alike, that is cylindrical epithelium in both, as seen under the microscope. It seemed to him that on this account the morbid development could not have sprung from the connective tissue.

Dr. Mackenzie said the growth in the liver was secondary, the cells having been carried by the portal vein and deposited in the liver, there developing at the expense of all the liver structures.

Dr. Illoway presented a fœtus and uterus, which had been removed by *Dr. Stark*, from the body of a woman who had died a few days before. He read a history of the case written by *Dr. Stark*, for two months past the attending physician, which showed that gestation had continued for nearly two years. The woman was 34 years of age, had been married fourteen years, and had borne four children. In July, 1874, she missed the menstrual discharge. The usual symptoms of pregnancy followed, and at the expiration of nine months she had pains closely simulating labor pains. In June, 1875, the menstrual discharge recommenced. Believing this to be a case of intra-uterine pregnancy, with retention of the fœtus in consequence of occlusion of the os, *Dr. Stark* made an incision through what he supposed to be the vaginal portion of the uterus, two and a half inches long, which was subsequently enlarged to six inches transversely, and two and a half inches antero-posteriorly, hoping to be able to extract the fœtus, or see it forced out by uterine contraction. The patient being much prostrated by hemorrhage, he did not persist in his attempts at removal. The next day he visited her, but found her too weak for further operative measures.

Death occurred in two weeks, from septicæmia. An examination of the specimen showed it to be a case of extra-uterine pregnancy, developing from the right ovary.

Dr. A. M. Brown said that six years ago he reported to the Academy of Medicine a case of extra-uterine foetation, which, however, had not been diagnosed until after the death of the woman. *Dr. B.* was called to see the woman on account of flooding, which occurred twice, with an interval of one month. Death occurred from rupture of the cyst. *Dr. B.* referred to the fact that notwithstanding the rules are laid down with considerable precision, the diagnosis is sometimes difficult, the opportunities for noting the development of the abdominal tumor not often presenting. In his case, as in the one reported by *Dr. Stark*, the abdominal tumor was said to have developed symmetrically. He thought diagnosis not important, as far as remedial measures are concerned, as the cases left to nature are less frequently fatal than if surgical interference is attempted, but several different forms of treatment have been proposed, and all have a certain amount of success. *Dr. Rogers*, of New York, in a paper presented to the American Medical Association, strongly advocates the relief of the patient by gastrotomy. *Dr. H. Lenox Hodge* reports a case of interstitial pregnancy, in which he dilated the os uteri, broke down the

uterine wall, and delivered the woman successfully. Attempts have been made to destroy the life of the child by electricity. More recently, Prof. Thomas has reported two cases in which he operated by galvano-cautery through the vaginal walls.

Dr. Stark said he was induced to make the operation on account of the excruciating pain which the woman suffered for several weeks. She was importunate for relief, and he hoped the operation would afford it. He thought the signs of extra-uterine pregnancy were wanting in this case.

Dr. Illovy thought the large per cent. of deaths, when left to nature, and the number of cases successfully operated on by gastrotomy, justified surgical interference in such cases.

Dr. A. M. Brown said he was not criticizing the treatment of *Dr. Stark's* case, only giving a general outline of the different forms of treatment offered for extra-uterine pregnancy; but, should remedial measures be undertaken, it seemed to him that in certain cases, in the early months of pregnancy, that the operation through the vagina, as proposed by Prof. Thomas, might be the best.

Dr. Holdt said he had known of three cases of extra-uterine pregnancy. In the first gastrotomy was performed by the physician in attendance, with the result of saving the child but sacrificing the mother. In the second case no operation was performed, and the woman was still living thirty years later. The third case, fatal without interference, was one of abdominal pregnancy. In this case the woman knew the exact time when the conception occurred. Two days later she was thrown from a wagon, and it is not improbable that the concussion may have caused the escape of the ovum from the fimbriated extremity of the tube.

Dr. Kemper asked *Dr. Stark* to state the diagnostic points in the case; how he came to the conclusion that it was a case of *intra-uterine* pregnancy.

Dr. Illovy stated, for *Dr. Stark*, that a foetal head could be felt in the iliac region; with a ball-pointed probe passed into the rectum, combined with external manipulation, the outlines of the foetus could be distinguished, and, by fluctuation, the presence of fluid supposed to be in the uterine cavity was detected. The symmetrical abdominal enlargement would lead to the belief that it was a case of *intra-uterine*, rather than *extra-uterine* pregnancy.

Dr. Holdt. Would not the fact of two years existence be sufficient to show that it was not a case of *intra-uterine* pregnancy? If, by accident, occlusion of the os had existed, rupture of the uterus would have occurred from contraction of the muscular coats.

The Cincinnati Medical Society met May 30th, 1876, *Dr. Taylor*, Vice President, presiding. The minutes of preceeding meeting were read.

On motion *Drs. Dandridge* and *Mackenzie* were appointed a committee to secure a hall for the use of the Society for the next

year, with instructions to secure the hall at present used if it could be had on reasonable terms.

Dr. A. C. Kemper read a paper on extra-uterine pregnancy. (See page 598.)

Dr. Taylor said that the occurrence of abortion was thought by some to preclude the idea of extra uterine pregnancy. Such is not the case. Fecundations may occur in two ova simultaneously or successively, one being lodged without, the other within the uterine cavity. One case has been reported where there were two extra-uterine pregnancies. There was no history as to whether they were successive or not.

In regard to diagnosis it is agreed that the diminution after nine months shall have elapsed is a common occurrence in extra-uterine pregnancy. *Hutchinson* says he overlooked a prominent symptom in not remembering that in one of his cases. The occurrence of paroxysms of severe pain in the early months, after the cessation of the menses, would seem to indicate the existence of extra uterine pregnancy. When *Dr. Kemper* attributes this pain to peritonitis, *Dr. T.* thinks he errs. It is probably more frequently due to the parts not being adapted to the extension to which they are subjected, not being accustomed to the new condition of things. Peritonitis may occur, but the speaker does not think as *Dr. K.* does, that the patient is apt to die from the circumscribed peritonitis. Death from this cause at this time is rare. There comes a time when from rupture of the cyst a fatal peritonitis may develop.

Upon the points of diagnosis *Dr. K.* suggests the use of the aspirator. Many prominent authorities are opposed to such a means of diagnosis as being dangerous and improper. *Ramsbotham* was successful in one case but as a rule it is not permissible.

Upon the most important points of treatment there must be a sort of non-committal idea. Where there is no urgent symptom demanding relief it is better to let the patient alone, for nature guards against serious results from the continued presence of the fœtus. When a case does demand operative procedure it is not safe to wait for suppuration. The vaginal operation is generally regarded as less successful than gastrotomy, though the success of *Prof. Thomas'* operation reported a year ago may change opinion as to its safety during the early months. Late in the case the testimony of figures is in favor of section of the abdominal walls.

Dr. Kemper said in regard to *Dr. Taylor's* remarks about abortion, that women have borne four or five children after an extra-uterine pregnancy.

In the majority of cases extra-uterine pregnancy destroys the mother before the period of quickening. How? Not by pain, but by peritonitis. The distension present may be a cause of peritonitis.

As to the aspirator as a means of diagnosis its use is recommended by good authorities, not that it is to be used indiscriminately, but when we have a large sack filled with amniotic fluid, palpation does not always tell us whether a fœtus is present or not.

Dr. Kemper thought the vaginal operation the most dangerous. Such a solid mass, as the fetus shown to us last week, could not be easily delivered through the undilated vagina. The numerous adhesions, and the large size and complicated attachments of the placenta rendering attempts at its removal during the viability of the fetus dangerous would render the vaginal operation more hazardous. He would decline to operate unless there was some very strong argument for operation, as impending danger to the mother's life. Cases demanding operation are very rare after nine months tolerance has been established. The danger of septicæmia is then the one to guard against.

Dr. Carson said he saw Mrs. Mooney, the patient whose history *Dr. Stark* had given one week before, early in June, 1875. She had been under the care of a homœopathic physician, who had been called to her at the time of her expected confinement. The pains ceasing after some hours, he left her, returning the next morning, when after an examination he told her that she was not pregnant, but had a tumor. This was the patient's statement to *Dr. Carson*. On inquiry *Dr. Carson* found that for a period of nine months previous to the time of expected delivery, she had all the ordinary symptoms of pregnancy, she had the usual stomach symptoms, the characteristic appearance of the nipples, the ordinary progressive enlargement of the abdomen, movements of the child at the usual time, &c. She was confident that she was pregnant. A month or two prior to the expiration of the term of pregnancy, she had some uterine hemorrhage, also some hemorrhage soon after conception. When *Dr. Carson* first saw her the size of the abdomen was about that of 8 months term, though it had been larger. There was a little difference in the appearance of the two sides, some degree of obliquity of the tumor. He could not succeed in getting any movements of the fetus; no fetal heart-sounds heard. Palpation for a few moments brought out a body which represented the fetal head, though *Dr. Foster*, who saw the case with him thought this not satisfactorily proved. He thought it might be some other part of the fetus.

On making a vaginal examination the os was, with some difficulty, found to the right and high up, a little toward the front. The position of this was not changed by change of position of the patient. In the vaginal pouch he found an elastic mass, which on being pressed from without communicated a sense of motion to the finger in the vagina.

Ballottement not satisfactorily found. They did not introduce a uterine sound because when they first saw the patient they were not quite sure that she might not have antedated her period of conception, and they wished to wait longer to satisfy themselves, that the period of nine months had elapsed after conception; and later they feared the introduction of a sound might cause a more serious condition than already existed.

From the symptoms above enumerated and from physical ex-

amination and the history of the case they were satisfied that pregnancy existed.

The displacement of the os, the pain and hemorrhage occurring at different times after conception, the loss of size after the expiration of nine months all seemed to point to this as a case of extra-uterine pregnancy, rather than other complication. In this opinion Drs. Wright, Foster and Carson all concurred. The last told Mrs. Mooney that he thought there was a child there, and Dr. Foster had told Dr. Stark that the diagnosis of extra-uterine pregnancy had been made, yet Dr. S. says their diagnosis was not known to him or to the patient!

They had never diagnosed ovarian tumor.

The Cincinnati Medical Society met June 6th, 1876, Dr. Comegys, President, in the chair.

The minutes of the preceding meeting read.

A communication was received from Woolrich & Co., of Palmer, Mass, with a can of Dr. Ridge's "Food for Infants and Invalids," to which they begged to call the attention of the Society, wishing an approval of the same.

Dr. Taylor moved that we decline to notice the article, because it is patented, and its constitution not known to us. Carried.

Dr. Kearney presented a pathological specimen showing a prostate enormously enlarged, and gave a history of the case as follows: (See page 587.)

Dr. Mackenzie presented two microscopic preparations from the case above reported, one from the original tumor, and one from the secondary growth in the liver, showing the cells diffused throughout the mass, instead of being arranged in groups in alveoli. An interesting point, he said, was the secondary growth in the liver, from the cells carried thence from the affected branches of the hemorrhoidal veins. It is probable that the lungs were not affected. He had never known a case so rapid in its course—less than three months. Why blood was found in the right kidney, he could not say certainly, but supposed it to be due to increased pressure in consequence of blocking up of large vessels below.

Dr. Kearney said the case was of interest as illustrating an important clinical fact, that is, the decidedly malignant character manifested by sarcoma at times; characteristics as distinctly malignant as any that mark true cancer. In this case the progress was remarkably rapid—less than three months. The distinctions made between sarcoma and carcinoma are, to his mind, somewhat fanciful. The sarcomata are characterized by the want of any distinct grouping in spaces or alveoli, whereas cancer, true carcinoma, is said to be distinguished by the grouping of the cells in separate spaces in the fibrous stroma. And yet there is a variety of sarcoma, which, according to Bilroth, is undistinguishable from carcinoma, as it possesses the same alveolar structure that is said to specially characterize the latter, and is hence designated alveolar sarcoma.

Dr. Mackenzie said that there was a case in the Cincinnati Hospital, two years ago, of sarcoma of the laffium—round cell sarcoma—which was fatal in three or four months; however, her case was complicated, death occurring soon after parturition. In regard to sarcomata and carcinomata, the latter grew from epithelium, whereas the former grow from connective tissues, those developed from the middle layer of the blastodermic membrane.

As to clinical character, there is frequently no difference as regards the rapidity of the disease. The sarcomata affect internal organs often without involving glands, while carcinomata always affect the glands first.

Dr. C. P. Judkins asked *Dr. K.* how he accounted for the small quantity of urine excreted.

Dr. Kearney said he could not account for it. He was at a loss to account for his patients condition for some time. He was told that he was passing no water, but accidentally found that was not true. He did pass some, though a very small quantity.

Dr. Hough asked as to the quantity of urea excreted by persons affected with sarcoma of rapid growth, not affecting the kidneys. Urea being soluble, a large amount may have been present in a small quantity of water.

Dr. Comegys asked what was the theory as to the growth of the cells.

Dr. Mackenzie said these tumors are the result of morbid growth of cells existing in the part, to their growing in an unnatural manner. The German authorities generally refer this to local conditions. The English to constitutional causes.

Dr. Walker said that in a recent work on diseases of the skin carcinoma is classed as a hereditary disease. In his own experience he did not know of a case of hereditary disease of this character.

Dr. C. P. Judkins asked whether the disease began in a lymphatic gland.

Dr. Mackenzie said he thought it began in the connective tissue. The lymphatic glands are seldom primarily affected.

Dr. Taylor said that in regard to *Dr. Walker's* statement, he thought we must look upon cancer as hereditary. He had just had a case of a man who fell, breaking two ribs. Soon after he discovered a tumor, which he thought the result of the injury, but it increased until it became a large nodular mass, evidently connected with the stomach. Another member of the same family died of cancer of the breast. In another instance mother and child were affected. Instances of such character are frequent enough to make him believe in the heredity of the disease.

Dr. Comegys said he had a patient who two years ago called his attention to a painful tumor on her left arm, between the radius and ulna. It was movable and very tender. It was about the size of the end of the little finger, and has not grown perceptibly for 18 months. There is no local heat; never has been any injury of the part. His attention had recently been called to it again on

account of the painful character of the tumor. What treatment should be resorted to?

Dr. Holdt said he now had such a case under his care in the hospital—a patient being treated for some other disease. The tumor was probably a neuroma.

Dr. Kearney thought the tumor should be cut out if its location would permit.

AMERICAN MEDICAL ASSOCIATION.

On Tuesday, June 6, 1876, Dr. W. K. Bowling, of Tennessee, retiring President, called the Association to order, at 11 A. M., and introduced Dr. J. Marion Sims, President elect.

Vice-presidents Dr. S. Lilly, N. J.; E. D. Seelye, Ala.; N. Pinkney, U. S. N., were at their posts.

The session was opened with prayer by Rev. E. R. Beadle, D. D., of Philadelphia.

Dr. Wm. Pepper, Chairman, on behalf of the Committee of Arrangements, welcomed the delegates, and announced the programme for the meetings.

He offered, as members by invitation, Dr. Wywoodzoff, of St. Petersburg, Russia; W. Roth, Surgeon General of the German Army; Assistant Surgeons, H. Heymann, and Max Brille; Surgeon General J. K. Barnes, of the U. S. Army, and D. Saffray, of Paris, France.

On motion, the reading of the roll was dispensed with, and all on the roll were accepted as properly accredited.

He reported several disputed cases, which were referred to the Judicial Council.

The Permanent Secretary read a letter from Dr. W. O. Baldwin, of Ala., regretting his inability to be present.

Vice-president Dr. S. Lilly having taken the chair, the President then delivered the annual address.

On motion of Dr. W. Brodie, of Michigan, the thanks of the Association were tendered to the President for his address, and it was referred to the Committee of Publication.

Several volunteer papers were offered and appropriately referred.

On motion of Dr. Toner, the address in Surgery was made the special order for Wednesday, at 10 A. M.; the address in State Medicine for 12, and that on Obstetrics for 10, on Thursday.

The list of committees was called, and as they reported they were referred to the appropriate sections.

On motion of Dr. Busey, D. C., the States were requested to select their members of the Committee on Nominations, and report them at 9½ on Wednesday. Adjourned.

WEDNESDAY, JUNE 7TH.

The President called the session to order at 9½ A. M.

The Permanent Secretary called the roll of States, and the names of the members of the Committee on Nominations were reported.

On motion of Dr. Keller, it was agreed to erect a platform in front of the present one, as the speakers could not be heard.

The Secretary read a report from the Judicial Council as follows:—

The Judicial Council have decided that the delegates from the Arkansas State Medical Society, or the New Society, be admitted as the proper representation from that State.

Dr. R. C. Kedzie, Michigan, read the address on State Medicine and Public Hygiene. His subject was "Natural Purifiers." It was referred to the Committee of Publication.

On motion of Dr. Jones, of Ohio, the resolution attached was adopted.

Resolved, That it is the first duty of States and municipalities, first in importance, and first in the order of time, to make a sanitary survey of the water supply, to preserve it against all unnecessary and avoidable contamination. 2. That no municipality should introduce a water system without at the same time providing a corresponding and co-extensive sewer system.

On motion, Drs. W. Hiorth and H. C. Holst, of Norway, were elected members by invitation.

Dr. A. Garcelon, of Maine, delivered the address in Surgery. Referred to Committee of Publication.

The report of Dr. E. Seguin was read, and the accompanying resolution adopted, as follows:—

Dr. Edward Seguin, in the name of the previous commission, reports:—

Since several years, the American Medical Association has given its support to a measure of great interest for those who have at heart the advance of physics, namely:—*The establishment of uniform means of observation, and of medical records, for the physicians of all countries.*

This action of the American Medical Association has been expressed by the adoption of successive resolutions, and by the sending of delegates charged with the mission of advocating this reform:—

In 1873. To the British Medical Association, meeting in London; and to the French Association for the Advancement of the Sciences, meeting at Lyons.

In 1874. To the British Medical Association, meeting at Norwich; and to the French Association for the Advancement of the Sciences, meeting at Lille.

In 1875. To the International Medical Congress, meeting at Bruxelles.

In 1876, (next September), the same Congress will meet in this

very place; and now the American Medical Association is called to decide what position it will assume in this matter.

Will it recede from its former position, and leave the task to second-hand promoters; or will it continue its initiative before the International Council?

This is not only a question of pride for the Association; it is also one of justice to the American physicians at large. If the constitution and by-laws of this Association prescribe an annual transfer of its meetings from one part to another of this vast country, it is to give us opportunities to study and express the wants of the whole profession. Of these wants, none has been found more deeply felt than the one of partaking, as givers and receivers, in the discoveries of our art. But this want is not ours alone; it is universal; and the American Medical Association will deserve the thanks of all for having planned and carried into execution the most important instrument of internationalization in medical progress.

Therefore, it is hoped that the Association will charge its delegates of former years to continue to advocate the uniformity of means of observation before the various Medical Societies, and particularly at the next International Medical Congress, and report next year what success they will have met.

Resolved, That this Association charges its delegates to advocate the uniformity of means of observation as hitherto, and especially at the International Medical Congress to be held in Philadelphia, September, 1876.

On motion of Dr. Atkinson, Drs. Seguin and Bowditch were made members of the delegation to the Congress for that purpose.

Invitations from the Academy of Natural Sciences and the University of Pennsylvania were read, and thanks returned.

The Secretary read the resignation of Dr. F. G. Smith, from membership on the Committee of Publication, which was referred to the Committee on Nominations.

The report of the committee on a paper entitled *Excision of the Joints* was read, as follows:—

PHILADELPHIA, May 20th, 1875.

To the American Medical Association:—

Your committee, appointed at the last session of the Association, to examine and report upon an essay entitled “Upon Excision of the Larger Joints of the Extremities,” bearing the motto, “*Labor omnia vincit*,” begs leave to report that it has thoroughly examined the same. The committee finds in the essay carefully prepared statistical tables of three thousand eight hundred and ninety-eight cases of excisions of joints. Anatomical details and special surgical considerations connected with the several joints in question are included in the article, together with a full bibliography.

Upon opening the sealed enveloped, which accompanied the

essay, the name of its author was found to be Dr. H. Culbertson, of Zanesville, Ohio.

Your committee decided that the essay was in every way worthy of the prize offered by the Association.

While venturing to express its own opinion that the article is too bulky for insertion in the transactions of the Association, the committee would recommend that the article be referred to the Publication Committee, and asks for its own discharge.

SAMUEL ASHHURST.

S. D. GROSS.

D. HAYES AGNEW.

On motion of Dr. Sayre, the report was adopted, and the paper referred to the Committee of Publication.

The Committee on Prize Essays reported as follows :—

PHILADELPHIA, May 20th, 1876.

To the President of the American Medical Association :

DEAR SIR—The undersigned, a committee appointed at the last meeting of the Association, to report on prize essays, have the honor to state that only two essays have been handed in, entitled, respectively, "Explorations in Physiology," and "Experimental Therapeutics," and that, in their opinion, neither of them is worthy of the reward.

S. D. GROSS, *Chairman.*

ALFRED STILLE.

ELLERSLIE WALLACE.

HORATIO C. WOOD, JR.

FRANCIS GURNEY SMITH.

The report was accepted.

On motion of Dr. Thompson, the Committee of Publication were instructed to publish the transactions in several volumes, if necessary.

A communication was read from the American Pharmaceutical Association :—

At a meeting of the American Pharmaceutical Association, held in Boston, September 9th, 1876, a committee, whose names are annexed, was appointed to confer with the American Medical Association, and to suggest to that body the advantage which would result from selecting a list of dangerously active medical preparations, noting their maximum doses and the maximum quantity which may be administered safely during twenty-four hours, and which quantity ought not to be exceeded in prescriptions, without the addition of some caution mark, previously agreed upon, by the physician. In case a prescription is presented to be compounded with articles ordered in quantities exceeding these maximum doses thus laid down, and without the caution marks annexed, the pharmacist should return the prescription to the physician. in order that the requisite caution mark or marks should be added.

It is believed by us that this observance would often prove of practical value, not alone to the physician and pharmacist, but also to the patient. It is intended by no means to indicate in any way the limit to which the medical attendant may prescribe any remedial agent, however powerful. Yet, as pharmacists, we must confess that very often we would feel greatly relieved if excessive or unusual doses of potent medicines were marked in some definite way by the prescriber, to show that they were thus intended to be administered. For the double purpose, then, of guarding in some degree the safety of the patient, and at the same time relieving the pharmacist from an unpleasant responsibility, we earnestly request the American Medical Association, in any way it may judge most expedient, to submit this subject to the careful consideration and action of their body; for we believe it belongs to the medical profession, rather than to the pharmacist, so to act.

You may be aware that in some European countries a list, as here suggested, is framed by legal enactment, and published by authority, and appended to the pharmacopœia, becoming thus obligatory on every pharmacist. We believe the same action might be carried into effect in this country under the authority of the medical and pharmaceutical societies.

W. H. PILE, Philadelphia,	} Committee.
LOUIS DOHME, Baltimore,	
CHAS. L. EBERLE, Philadelphia,	

On motion of Dr. Atkinson, it was referred to a committee, consisting of Drs. Stille, Biddle and Rogers.

On motion of Dr. S. D. Gross, it was

Resolved, That those medical gentlemen present at this meeting, who were permanent members, but are now excluded from membership, simply on account of being in arrears, be re-instated to membership, if full payment be made at once of all dues.

The reports of the Treasurer, showing a balance in the treasury of over \$7000, and of the Committee of Publication, were read and accepted.

The report of the Librarian, showing continued increase in the library, and with the following resolutions attached, was received, and the resolutions adopted:—

Resolved, That the Librarian be furnished yearly with one hundred copies of the volume of Transactions, for exchange with foreign medical and scientific societies and prominent foreign medical journals.

Resolved, That as complete a set as practicable of the Transactions be furnished to the Inspector General of Customs, Shanghai, China, and to the Académie Royale de Médecine de Belgique; and further, that, if practicable, vols. 4, 14, 15, 16, 17, 18, 19, 20, 21 and 22 of the Transactions be furnished to the Royal Medical and Chirurgical Society of London.

The bill of the Librarian, \$8 55, was ordered paid.

Dr. Barr was made a member by invitation.

An invitation to visit their building was received from the College of Pharmacy, and accepted.

A memoriam of Dr. Logan, of California, was read, and ordered to be entered on the minutes.

Dr. H. T. Rennolds, of Maryland, offered a resolution that five thousand copies of that part of the President's address referring to syphilis be printed for general distribution.

Dr. Quimby, of New Jersey, offered an amendment, which was accepted by Dr. Rennolds, that ten thousand copies be sent to the Secretary of each district or county association, to be distributed among the clergy and other educated members of the community.

Dr. Ohr, of Maryland, offered, to amend, that they be sent by the permanent Secretary, to the members of this association, with the request that they distribute them. After some discussion the amendment was adopted, and the resolution as amended was adopted.

The delegates to Brussels reported as follows:

Mr. President and Gentlemen of the American Medical Association.

SIRS—At the last meeting of your honorable body, held at Louisville, Ky., May 4 to 7, inclusive, 1875, the following resolution offered by Dr. Edward Seguin, of New York, was adopted, viz:

“Therefore, the American Medical Association resolve to nominate new delegates, commissioned to again advocate in Europe the unity of clinical observation, and charge them to report progress, in brief, at the meeting of 1876.”

In accordance therewith, the following gentlemen were commissioned as such delegates, namely:

Drs. H. D. Holton, of Vermont; A. E. M. Purdy, H. B. Sands, John Draper, J. C. Hutchison, E. C. Harwood, of New York; H. R. Storer, and L. F. Warner, of Massachusetts; E. T. Easley, of Texas; J. A. Adrain, of Indiana; and John Morris, of Maryland.

Arriving at Brussels, Belgium, the American delegation was found to consist of only two members, Drs. J. A. Adrain, of Indiana, E. C. Harwood, of New York. They felt great regret at not finding a larger number present.

They were received with distinguished consideration and marked courtesy by the International Medical Congress, there convened, on the 19th day of September; and as soon as their presence was officially announced to that body, they were enthusiastically and unanimously made Honorary Presidents.

Feeling the responsibility which devolved upon them, as the only representatives present from the American Medical Association, they at once proceeded to forward the measures which they had been appointed to advocate. They are not at the present time able to present the result of their efforts, owing to the fact that the transactions of the International Medical Congress have not yet

reached this country. The serious illness of the Secretary General, M. Warlomont, has also delayed that publication several months. They can, therefore, merely report progress. However, from conversations held with various distinguished gentlemen present on the occasion, they felt quite fully warranted in saying that their propositions in your behalf would be very favorably entertained.

Your delegates wish to express the great pleasure and gratification which they experienced in the manner of their reception by the Congress, by the City of Brussels—having been made its guests—and by his Majesty, the King of Belgium, at the royal palace.

They desire also to acknowledge courtesies from Drs. Edward Seguin, of New York; Henry Collignon, of Brussels; and Alexander Ogiston, Surgeon to the Aberdeen Royal Infirmary, Scotland.

They have referred to the fact, that, owing to the illness of the Secretary General of the International Congress, the publication of its transactions, *in extenso*, has been delayed several months.

They are happy to say that they were fortunate enough to secure and bring with them an official copy of the minutes of the Congress, published in a small pamphlet in the French language. From this document, through the courtesy of Dr. Geo. W. Wells, of New York City, a translation of the essential points of what transpired has been made and compiled, under the title "Brief Résumé of the Proceedings of the International Medical Congress at Brussels, 1875," etc., a copy of which is herewith submitted as a portion of this report.

To the English reading portion of our profession this Résumé will be found of special interest; but the French reading physician is referred to the full "Transactions," which may be obtained from the Secretary General at a cost in gold of about the same as our own Transactions.

All of which is respectfully submitted in behalf of the American Delegation to the International Medical Congress, Brussels.

EDWARD C. HARWOOD, M. D., of New York, *Chairman*.

New York City, June, 6th, 1876.

The report was accepted and referred to the Committee of Publication.

On motion of Dr. Toner, and obituary of Dr. Armsby was ordered to be read. The Permanent Secretary read a part, when it was referred to the Committee of Publication.

On motion, the Association adjourned, until Thursday at 9½ o'clock A. M.

THURSDAY'S SESSION.

Adjourned to the Alhambra, by reason of want of power to hear in the Horticultural Hall.

On motion of Dr. Keller, the acceptance of the roll of members was reconsidered.

The Secretary then called the roll in part.

At 10 o'clock Dr. Busey delivered the address in Obstetrics.

On motion of Dr. J. L. Atlee, it was referred to the Committee of Publication, and to the Section, for discussion.

Dr. Murdoch, of Pennsylvania, moved to dispense with the further call of the roll, and that it be referred to a committee, Dr. Toner Chairman, for examination.

On motion of Dr. Toner, this was laid on the table.

The Secretary continued to call the roll.

Dr. Frothingham objected to all from the State Medical Society of Michigan, and asked that they be referred to the Judicial Council.

The Secretary, at this point, read a partial report of the Judicial Council:—

The Judicial Council have decided that the delegates from the Michigan State Society be admitted as delegates to the American Medical Association.

S. N. BENHAM, *Secretary*.

As the name of Dr. Sarah Hackett Stevenson was called, Dr. Brodie moved that the names of all female delegates be referred to the Judicial Council. This was, on motion, laid on the table.

With the few exceptions of the names of those not now permanent members, and those registering as delegates from hospitals and bodies not entitled to representation, on motion of Dr. Toner, the roll as called was then confirmed.

On motion of Dr. Holton, of Vermont, the Secretary was directed, at future meetings, to print each day the names as enrolled.

Dr. Reese, of New York, offered a resolution on patents, which, on motion of Dr. Jones, of Ohio, was referred to the Judicial Council.

Dr. Hunt, of New Jersey:—

Resolved, That the Judicial Council, consider that portion of the President's Address which relates to ethics, and report next year if alterations are needed.

Dr. Reese:—

Resolved, That a committee be appointed by the Chair, to consider upon and propose such revision of the Code of Ethics of this Association as they may deem practicable, and report at the meeting of the Association next year.

On motion of Dr. Busey, it was laid on the table.

The address of Dr. E. L. Howard being in order, he was not well enough to respond.

Dr. Keller read the report from the McDowell Memorial Fund:

REPORT FROM TRUSTEES OF McDOWELL ESSAY FUND.

Total amount of subscriptions received to date . . .	\$494 00
Amount of Expenditures	340 00
Amount in hands of Treasurer	\$154 00

* * * * * * * *

Resolved, That, until the sum of ten thousand dollars be raised, the annual fee of membership be increased from five dollars to six dollars, and that this increase of one dollar be set aside to create the fund.

On motion of Dr. Toner, the report was accepted.

Dr. Busey objected to the change in the dues.

Dr. Waterman, of Indiana, moved to appoint a committee of seven to take up a collection at once.

On motion of Dr. J. L. Atlee, it was laid on the table.

Dr. Toner moved to appropriate \$1,000 from the treasury.

Dr. Howard rose to a point of order, that such matters could be considered only on the first and fourth days.

On motion of Dr. Raymond, Dr. Toner's resolution was laid on the table till to-morrow.

Dr. Woodward urged that the regular order of business be resumed.

Announcements were made of papers in the sections.

Dr. Henry A. Martin, of Mass., offered the following:—

Resolved, That the subject of bovine or animal vaccination is one demanding serious investigation from this Association, that approval and endorsement may be given to it if considered worthy; condemnation if it shall be considered, as compared with the usual or "arm to arm" method, unworthy of such approval; therefore.

Resolved, That a Committee on Animal Vaccination be formed, to consist of a chairman and two associates to be selected by him, which shall report upon the whole subject of animal vaccination at the next meeting of this Association.

On motion, the President was directed to appoint the committee entire.

Dr. H. W. Jones, of Chicago, Ill., was appointed a delegate to foreign medical societies.

On motion adjourned till Friday at 9½ A. M.

FRIDAY, JUNE 9,

The Association met again at the Hall, the Alhambra being occupied.

A charge, by Dr. E. Richardson, against the Illinois State Medical Society, was presented and referred to the Council.

On motion of Dr. Toner, it was

Resolved, That members of the medical profession who in any way aid or abet the graduation of medical students in irregular or exclusive systems of medicine, are deemed thereby to violate the spirit of the ethics of the American Medical Association.

Dr. Atkinson presented the following:—

To the American Medical Association:

In obedience to the resolution adopted at the session of 1875 (p. 50 of Minutes), I have to report that, in reply to my inquires, I am informed that Boards of Health now exist in Alabama, California, Georgia, Massachusetts, Michigan, Minnesota, Virginia, and Wisconsin, but eight States in all.

The Secretaries of the several State Societies have been applied to for the proper information, and in many instances they have informed your committee that their State body is urging the matter upon their State Legislature.

I have written to the Governors of Delaware, Indiana, Iowa, Nebraska, New Jersey, New York, South Carolina, Texas and Vermont, with almost negative results. The present year is too full of excitement over the Centennial, the approaching Presidential election, and the like, to yield much fruit in a matter so unselfish as the one in hand.

The boards of all the States named are constantly proving the great importance of such bodies, except that of Virginia, which seems crippled for want of sufficient funds to do what is necessary.

With the hope of a better showing in my next report.

I am, very respectfully,

WM. B. ATKINSON.

A note of regret from Dr. P. F. Eve was read and entered.

On motion of Dr. H. C. Wood, of Pennsylvania, it was

Resolved, That a committee be appointed by the Chair to solicit from Congress an appropriation for the publication of the subject catalogue of the national Library, and that the State Societies are requested to take such action as may be deemed fit to further said object.

Committee, Drs. H. C. Wood, Toner, and Chadwick.

The Secretary read the following:—

WAR DEPARTMENT,

OFFICE OF MEDICAL STATISTICS,

WASHINGTON, D. C., June 5th, 1876.

J. Marion Sims, M. D., President American Medical Association.

DEAR DOCTOR:— I have the honor to transmit herewith a copy of the Medical Statistics of the Provost Marshal General's Bureau,

for presentation to the American Medical Association at its present meeting in Philadelphia.

Very truly yours,

J. H. BAXTER, M.D.,

Chief Medical Purveyor U. S. Army, Permanent Member American Medical Association.

It was received with thanks.

Dr. Frothingham offered a communication, which was referred to the Council.

The Nominating Committee reported as follows :—

REPORT OF COMMITTEE ON NOMINATIONS.

The Committee on Nominations respectfully report the following gentlemen for the various offices named :—

President—H. I. Bowditch, of Massachusetts.

Vice-Presidents—N. J. Pittman, of North Carolina; Franklin Staples, of Minnesota; Joseph R. Smith, of U. S. Army; Samuel C. Busey, of District of Columbia.

Treasurer—Dr. Casper Wistar, of Pennsylvania.

Librarian—Dr. William Lee, of District of Columbia.

Committee on Library—Dr. Johnson Eliot, of District of Columbia.

Assistant Secretary—J. H. Hollister, of Illinois.

Committee of Arrangements—Drs. N. S. Davis, I. W. Freer, H. A. Johnson, T. D. Fitch, H. W. Jones, Joseph P. Ross, and Lester Curtis.

Committee of Publication—Dr. W. B. Atkinson, Chairman; Drs. T. M. Drysdale, Albert Fricke, Samuel D. Gross, Casper Wistar, Richard J. Dunglison, all of Pennsylvania, and William Lee, of District of Columbia.

Next place of Meeting—Chicago, Illinois.

Time of meeting—First Tuesday in June, 1877.

The Committee also report the following nominations for Chairmen and Secretaries of sections for 1877 :—

1. *Practice of Medicine, Materia Medica and Physiology*.—Dr. P. G. Robinson, of Missouri, Chairman, and B. A. Vaughan, of Mississippi, Secretary.

2. *Obstetrics and Diseases of Women and Children*.—Dr. James P. White, of New York, Chairman, and Robert Battey, of Georgia, Secretary.

3. *Surgery and Anatomy*.—Dr. D. Hayes Agnew, of Pennsylvania, Chairman, and Dr. Moses Gunn, of Illinois, Secretary.

4. *Medical Jurisprudence, Chemistry and Psychology*.—Dr. Eugene Grissom, of North Carolina, Chairman, and Dr. E. A. Hildreth, of West Virginia, Secretary.

5. *State Medicine and Public Hygiene*.—Dr. Ezra M. Hunt, of New Jersey, Chairman, and Dr. D. R. Wallace, of Texas, Secretary.

Members: I. B. Gaston, of Alabama; D. A. Linthicum, of Arkansas; W. F. Cheney, of California; Chas. Dennison, of Colorado; Chas. A. Lindsley, Connecticut; Wm. Marshall, Delaware; F. Howard, District of Columbia; W. F. Westmoreland, Georgia; H. Johnson, Illinois; L. D. Waterman, Indiana; A. G. Field, Iowa; D. W. Stormont, Kansas; Samuel Brandeis, Kentucky; S. M. Bemiss, Louisiana; E. F. Sanger, Maine; Chas. H. Orr, Maryland; H. I. Bowditch, Massachusetts; W. L. Lincoln, Minnesota; I. M. Taylor, Mississippi; F. G. Porter, Missouri; N. W. Russell, New Hampshire; Elisha Harris, New York; J. R. Black, Ohio; Benj. Lee, Pennsylvania; E. M. Snow, Rhode Island; R. A. Kinlock, South Carolina; Thos. A. Atchison, Tennessee; T. J. Heard, Texas; J. L. Cabell, Virginia; L. C. Butler, Vermont; John Frissell, West Virginia; H. P. Strong, Wisconsin; G. W. Betton, Florida; Chas. J. O'Hagan, North Carolina; Jno. S. Billings, U. S. A.; Jos. Wilson, U. S. N.; Michigan, H. O. Hitchcock.

Committee on Necrology.—Dr. S. C. Chew, of Maryland, Chairman, and L. C. Butler, of Vermont, Secretary. Members: Drs. John M. Barclay, of Alabama; Martin Baker, California; G. W. Russell, of Connecticut; R. G. Jennings, Arkansas; L. P. Bush, Delaware; W. W. Johnson, District of Columbia; E. J. Kirksee, Georgia; W. M. Chambers, Illinois; Wm. Lomax, Indiana; J. W. H. Baker, Iowa; L. P. Yandell, Sr., Kentucky; S. C. Gordon, Maine; A. Sager, Michigan; A. J. Steele, Missouri; John Blane, New Jersey; Gouverneur M. Smith, New York; George Mitchell, Ohio; W. C. Warriner, Oregon; Horatio C. Wood, Pennsylvania; Charles W. Parsons, Rhode Island; A. N. Talley, South Carolina; B. W. Avent, Tennessee; L. E. Locke, Texas; L. S. Joynes, Virginia; E. Burk Haywood, North Carolina; Darius Mason, Wisconsin; — Fawcett, Vermont; P. F. Whitehead, Mississippi; C. B. Mottram, Kansas; Levi G. Hill, New Hampshire; Robert W. Hazlett, West Virginia; J. R. Bronson, Massachusetts; J. J. Woodward, U. S. Army; Joseph Wilson, U. S. Navy; A. W. Stinchfield, Minnesota.

Judicial Council.—Drs. N. S. Davis, of Illinois; E. L. Howard, of Maryland; W. O. Baldwin, of Alabama; H. W. Dean, New York; A. N. Talley, South Carolina; J. P. Logan, of Georgia; D. W. Stormont, of Kansas, in place of the seven whose terms expire at this meeting. The rest of the present Council continue.

Committee on Prize Essays.—Dr. N. S. Davis, Illinois, Chairman; Edmund Andrews, E. Ingalls, Moses Gunn, E. P. Cook, all of Illinois.

Special Committee, on Influence of Climate on Pulmonary Diseases in Florida, Dr. E. T. Sabal, continued.

Delegates to the International Medical Congress, to be held September 4th, 1876, at Philadelphia.—Dr. H. I. Bowditch, of Massachusetts; E. Seguin, of New York; Thomas L. Madden, of Tennessee; J. S. Welford, of Virginia; A. Dunlap, of Ohio; John T. Hogden,

of Missouri; Joseph Carson, of Pennsylvania; John C. Dalton, of New York; W. O. Baldwin, of Alabama; D. W. Yandell, of Kentucky; N. S. Davis, of Illinois; Austin Flint, Sr., of New York; T. G. Richardson, of Louisiana; W. F. Westmoreland, of Georgia; A. M. Pollock, of Pennsylvania; Frank Hastings, of Hamilton, New York; G. M. Bemiss of Louisiana; L. A. Dugas, of Georgia; Francis Bacon, of Connecticut; Hunter McGuire, of Virginia; A. J. Shurtleff, of California; E. M. Moore, of New York; O. W. Holmes of Massachusetts; G. A. Ottis, United States Army; F. E. Gunnell, United States Navy.

Respectfully submitted,

SAMUEL LILLY, *Chairman.*

JOHN H. CALLENDER, *Secretary of the Committee.*

JOHN C. HUPP, *Assistant Secretary of the Committee.*

Resolved, That the delegation now appointed to the International Medical Congress be authorized to fill vacancies in their body, caused either by absence or by those holding duplicate appointments.

On motion of Dr. Brodie the report was adopted.

Dr. J. L. Atlee moved that \$1,000 be appropriated to the Permanent Secretary, which was adopted.

Reports from Sections were presented and referred to the Committee of Publication.

On motion the hour of 11 was fixed to hear Dr. E. R. Squibb on the revision of the Pharmacopoeia.

The President appointed as Committee on Bovine Vaccination, Drs. Martin, Foster and S. N. Troth.

The Secretary read the following:—

The Secretary of the Judicial Council was directed to report to the Association, that, "In the matter of the charges against the Michigan State Medical Society, the Council is unable at this time, to come to a decision, because of the large amount of documentary, and other evidence; and it withholds any expression of opinion until it shall have been able to give the subject the consideration it merits."

S. N. BENHAM, *Secretary.*

On motion of Dr Bell,

Resolved, That there be appointed a Committee of three persons, members of this Association, in each of those States where there has been no action taken for the establishment of Boards of Health, to urge upon those States the necessity of the establishment of such Boards.

The Section of Medical Jurisprudence reported, and it was referred to the Committee of Publication.

The Surgical Section recommended, by a vote, that Dr. J. W. Thompson, of Kentucky, be appointed a Committee to report on "The Inheritance of Syphilis."

E. T. EASLEY, *Secretary.*

The Secretary presented the report on Necrology, which was referred for publication.

On motion of Dr. R. J. Levis was made a delegate to foreign societies.

The Secretary read the following:—

OFFICES OF THE COMMISSIONERS FOR VICTORIA, FOR THE PHILADELPHIA EXHIBITION OF 1876, PHILADELPHIA, June 7, 1876.

To the President of the Medical Association of America, Philadelphia.

SIR:—I have the honor to request the good offices of the Medical Association of America, under the following circumstances.

I have been asked by the Medical Association of Victoria to make some inquiries into the status of the medical colleges and schools of medicine in this country, and the validity of the degrees conferred by them. The laws of Victoria allow any person to practice medicine who possesses a diploma which shows that he has received such a medical education as would enable him to practice in his own country, and the Medical Society of Victoria, while well aware that in America, as in other countries, the professional status of the alumni of certain colleges is much higher than that of those in others, have no power or desire to cavil at the provisions of the laws.

It is, however, notorious that persons who cannot and have not received any medical education, who in some instances have not been absent from the colony for many months, and who, prior to their departure, had no acquaintance with any of the branches of medicine or surgery, return to Victoria with what purport to be American degrees or diplomas, upon the strength of which they apply to have their names enrolled on the list of legally qualified medical practitioners of Victoria. It is quite clear that these distinctions which they hold must have been gained improperly, and without study or examination; and it is upon this head, and with the hope of being able to prevent such frauds upon the public and the profession, that I have been requested by the Medical Society of Victoria to address you.

I have, therefore, to ask that you will, at your convenience, favor us with a list of the colleges and medical schools in the United States which have the power of conferring degrees recognized by the profession in America.

Hoping that the interests and honor of your common profession will be sufficient apology for my troubling you, I have the honor to be your most obedient servant,

GEORGE COLLINS SAVAGE,

Secretary to Royal Commissioners from Victoria.

On motion of Dr. J. L. Atlee, it was entered on the minutes.

He moved, also, that the Judicial Council give the information.

Dr. Compton moved that a committee of three be appointed to reply to it.

Dr. H. C. Wood moved, as a substitute, that this Association deems it not best, at present, to give such sanction to any colleges.

After much discussion, Dr. Lilly moved to amend, that it be referred to the Council, and the Secretary acknowledge its receipt.

The amendment was adopted and the matter was so referred.

Other discussions arising on this subject, on motion of Dr. Toner, all questions relative to this matter were laid on the table.

On motion of Dr. Richardson, Ky., thanks were tendered the Committee of Arrangements for their efforts to provide for the Association.

On motion, Dr. I. P. Davis, Pa., offered the following:—

Resolved, that a Committee of Arrangements be requested to provide a post office or other means of communication between members attending conventions of this Association and also a hotel register.

Dr. Pepper moved to amend, that a permanent Committee on Business and Arrangements be created, who shall take into consideration this subject.

Dr. Davis accepted the amendment, and it was adopted. Committee:—Dr. N. S. Davis, Illinois, Chairman; Drs. W. Pepper, Pa.; W. Brodie, Mich.; I. P. Davis, Pa., and J. M. Toner, D. C.

On motion of Dr. J. C. Hupp, W. Va., it was,

Resolved, That the thanks of this Association be and are hereby tendered to Drs. D. Hayes Agnew, J. Solis Cohen, Louis A. Duhring, H. Lenox Hodge, John H. Packard, Wm. H. Pancoast, Wm. Pepper and Ellwood Wilson, for marked courtesies and attentions to the members of this Association.

The minutes and papers of the Section on Medical Jurisprudence, etc., were referred to the Committee of Publication.

On motion, the President was requested to appoint a committee to conduct the President elect to his post, which was composed of Drs. J. L. Atlee and Toner.

The President elect, Dr. H. I. Bowditch, of Massachusetts, then assumed the chair.

The retiring President, Dr. Sims, made a farewell address, to which Dr. Bowditch replied in appropriate terms.

On motion of Dr. Waterman, of Indiana, it was,

Resolved, That the thanks of this Association, be given to the retiring *President* and Officers of this Association, for their services to this body during the year past.

On motion of Dr. Garcelon, of Maine, Dr. Bowditch was requested to serve as a delegate to the International Medical Congress and use his own discretion as to all questions which might come before it.

Dr. E. R. Squibb, of New York, then offered the following resolutions, which, after a very full explanation by that gentleman, were unanimously adopted:—

WHEREAS, The usual time for a decennial revision of the United States Pharmacopœia is drawing near; and,

WHEREAS, The plan of revision and publication in force since 1820 may not now be the best that could be devised; therefore be it

Resolved, That the American Medical Association take the whole

subject of the National Pharmacopœia into consideration, for a review of its management, and for the present time with especial reference to the following questions:—

First, Whether the present plan of decennial revision and publication be practically sufficient for the needs of the materia medica and pharmacy of the present time; and if not sufficient, whether a plan could be devised which might offer probable advantages enough to justify an attempt to disturb the present one.

Second, Whether this Association be the proper custodian in this country of the interests involved in the National Pharmacopœia; and, if it be the proper source of the National Codex, whom can it invite to co-operate with it in the work?

Third, If it be a work for this Association, in what way can its details be wisely undertaken with any prospect of material improvement upon the present plan?

Resolved, That in order to facilitate mature and general deliberation upon so important a subject, the final discussion of these resolutions be laid over for at least one year, and that the matter be recommended to the President of the Association for consideration in his annual address for the meeting of 1877.

On motion of Dr. Sayre, Dr. Squibb was requested to reduce to writing his plan, that it might be published with the Transactions, and that it be made the special order for 10 A. M., on the second day of the session of 1877.

Dr. Woodward, U. S. A., moved to amend, that the whole subject be made the special order at that time, and that Dr. Squibb be requested to give his views in detail. The amendment was adopted, and the resolution as amended was adopted.

Dr. Bell, Iowa, offering the following, which was, on motion, laid upon the table:—

Resolved, That as a centennial memento, there be prepared by this Association the history of the original discoveries, improvements, and observations of the past century of American medicine, surgery, obstetrics, and such collateral branches as may be claimed as original productions, and that a committee of experts be appointed to report at our next annual meeting.

On motion of Dr. W. C. Jacob, of Ohio, it was

Resolved, That this Association is under *marked* obligations to Professor L. A. Sayre, for his admirable practical demonstration of his appliance for Pott's disease, which, indeed, makes a new era in surgical science.

A vote of thanks was tendered to the Messrs. Kiralfy, for the use of the Alhambra Theatre.

On motion, adjourned to meet in Chicago, in June, 1877.

EIGHTH ANNUAL MEETING OF THE ASSOCIATION OF
AMERICAN MEDICAL EDITORS.

The meeting was called to order on Monday, June 5, 1876, in Philadelphia, by the President, Dr. A. N. Bell, of New York. His annual address was devoted mainly to an able and eloquent appeal for a higher standard of requirement for admission to the profession of medicine in this country. The facilities offered by most of our medical colleges were stated to be abundant, but the time of attendance required of the student, two terms of four to six months each, was absurdly insufficient to enable him to profit intelligently by the advantages offered.

Dr. H. C. Wood fully endorsed the views advanced in the President's address. In the early days of medical instruction in this country, the colleges attempted to teach only the fundamental branches; and those they taught well and thoroughly. Now the schools attempt to cover the whole vast field of modern medical sciences, including the various specialties, and still expect the student to comprehend all of this in the old four or six months session. The result was that the graduates of to-day went out with a superficial smattering of all, but really thoroughly grounded in no one department. He believed in supporting Harvard and such schools as had had the courage to come boldly forward and institute the reforms of a three years' graded course, until their success should compel the others to follow.

Dr. Byford, of Chicago, counselled moderation. He thought that most of the colleges were doing very well,—as well as they could. Give them time enough, and they would accomplish all the needed reforms. In reference to the deficiency of preliminary education on the part of medical students, he thought that the practitioners who sent these imperfectly prepared students to the colleges were in the main responsible. Let the colleges have better material sent them, and they would turn out better educated physicians.

Dr. Palmer stated that in introducing this requirement of preliminary examination into Michigan University, they had found it necessary to reject several applicants. The preceptors of these gentlemen were very much offended, and the students easily gained admission at other schools, where no such preliminary acquirements were necessary.

The question of State laws regulating the practice of medicine was discussed at some length by several members. *Dr. Connor*, of Detroit, said that he had taken opportunity to examine somewhat carefully the effects of the laws now in force in Canada, which require each practitioner of medicine to pass examination by a mixed board containing representatives of the different schools of medicine, homœopathic, eclectic, etc. The result, he stated, had been that those districts had been overrun with a class of unprincipled quacks and charlatans, who possessed sufficient knowledge

to pass the examining board, and were thus licensed to practise, and could compel recognition and admission to all medical societies, while they were under no moral or ethical restraints. Their advertisements and posters were to be seen on every lamp-post and fence-corner throughout the country. He thought that the profession must establish and maintain its own requirements for admission to its ranks, and its own ethics; also, that some standard of acquirement other than the possession of a simple college diploma, should be required for admission to the State medical societies and to the American Medical Association. The following resolution was offered and unanimously adopted:

“Resolved, That we express our approval of such medical schools as require preliminary examinations and a three years graded course of instruction with stated examinations.”

Dr. H. C. Wood was then elected President for the ensuing year; Dr. F. H. Davis, Permanent Secretary.—*Phila. Med. Times*.

HOW TO MAKE CASTOR OIL AND COD LIVER OIL PALATABLE. The best way is to pour frothy porter in a tumbler and the castor oil on top of the froth. It will be so enveloped by the latter as to be swallowed without tasting it.

If porter is not admissible, then the next best thing is soda-water with a frothy syrup. In default of soda-water, make it. Put about half an ounce of water in a tumbler, about as much, or a little more, of a frothy syrup (Parrish's second formula for Sarsaparilla syrup, p. 722, 4th edition, is about the best for that purpose), a pinch of bicarbonate of soda, and a little less of tartaric acid, and stir; now pour the castor oil on top of the froth.

The above is nothing new to many of the readers of THE DRUGGISTS' CIRCULAR; but while it is a good way for adults to take castor oil, it will not do for children. I have found nothing better than the *glyceritum olei ricini* of the Philadelphia Hospital. One fluid ounce each of castor oil and glycerine, and oil of cinnamon to taste; (the original formula uses three drops, but that is rather too much).

For cod liver oil Hager's idea is excellent. He adds to each pint one fl. drachm of chloroform. The oil will taste quite blandly, and not at all nauseous.

By the way, Hager recommends chloroform as an addition to bitter mixtures or tinctures, the bitterness of which will not be so perceptible.—[*H. M. Wilder in Druggists' Circular*.

Editorial.

A New Medical College (Eclectic?)

We have occasionally to chronicle the birth of a new medical college (Eclectic), and sometimes we note the fact that pregnancy has been observed, and that parturition (of professors) may soon be expected. It is true that our motives in doing this are frequently called in question, and people claim that our interest always stands in the way of doing the parties full justice. We are all honorable and learned men, and we hope our friends of Chicago and St. Louis will welcome the newcomer in the field of medical instruction, and repeat the wish "that we had more Eclectic Colleges."

"BENTON, Saline County, Ark., April 24th, 1876.

MR. JOHN M. SCUDDER, M. D.—My Der Sir i Drop you this Lines to Ask A favor of you. I Wish that you Wold send mee one of your Blank Diplomys such As you Use in the Coledg the reason Why i Want it is Wee Ar trying to Git up a Schoole in this Country and i Wold Like to Patern After yours i Hav seen yours And Like them And i Am Rather Parchel to Ohio Anyhow having formerly Lived there if you Will bea so kind As to send Mee one of them i will Pay all charges hoping to hear from you soon I Am yours.

J. W. HALL, M.D."

Eclectic Medical Journal.

The mist having passed from our eyes, let us look, and behold the future medical college as located at Benton, Saline County, Arkansas. Professor J. W. Hall, M.D., and associates having waited long, patiently and apparently in vain for a generation of young Æsculapians to come West and grow up with the country, have actively engaged in the landable enterprise of gitting up a school. Having obtained a patern diploma, they expect to begin the session under the most favorable auspices. Tickets from other respectable colleges will be recognized, but the holder should in all cases present a certificate of good moral character. Tickets from mixed

schools need not be accompanied by the above certificate. The Benton medical college will be conducted on the most liberal principles, her graduates being permitted by practice all the isms and pathies taught in the most approved modern schools.

The neighboring State of Texas is largely devoted to the raising of sheep, consequently the number of diplomas the faculty are prepared to grant, is only limited by the means of applicants.

The National Moral Investigating Committees, having reported, closed their labors and saved the country. Professor Verdi is expected to visit Benton Medical College, and deliver his famous lecture on "Cerebral Depression, accompanied by fainting, and serious effusion." Kindly relating his treatment of presidential candidates, and other distinguished patients who have been under his care.

Professor Pope is also expected to visit Benton and deliver his lecture on "Passive Apoplexy," as it affects prospective presidents. The learned Professor will graphically describe the harmonious workings of the invisible law of *similia similibus curantur*, as illustrated in the application of mustard draughts to the feet, and cups to the spine, for the above malady. The Professor's original method of applying the mustard, and the special dilution used on such occasions, will be made known, for the first time, in his lecture at Benton. The size of the cups will also receive due attention, as they are important adjuncts in the treatment.

Having sent special invitations to all presidential aspirants to make Benton their future resort, when not engaged in saving the country, we expect to offer unprecedented clinical advantages. As the graduates of Benton Medical College are expected to practice exclusively among the most favored portion of the communities in which they locate. The utmost care will be taken that only patients of wealth, culture and high intellectual attainments are exhibited in the class room. The faculty are especially proud of their laboratory, which is unparalleled in its completeness.

The facilities for manufacturing all the known gasses, at once impresses the student with their importance and use. An

illusionotype plate of each separate gas will be presented to each graduate. (These plates are valuable prizes, and as one is given with each diploma and duly announced with the holder's name, the graduates are not made envious of each other.)

The faculty of Benton Medical College are urgently in favor of reform in medical education, believing that the one great qualification for success in the practice of medicine is genius. Without genius no man can rise above mediocrity, hence, in their preliminary examination they pass over the ordinary branches of a classical education, and require each student to be possessed of genius, in other words, the ability to not say or do any thing in the manner practiced by ordinary people. Students will come prepared. The faculty believing that the height of the mercury, in the thermometer, should have no specific influence over the value of a diploma, they have made special arrangements which enables them to issue diplomas at all seasons of the year.

For further particulars address the Dean of Benton Medical College.

In the neighboring County of Butler there has recently been concluded a suit for malpractice, that is of interest to surgeons and general practitioners.

Three years ago one M. Flannigan was kicked by a horse, and suffered a fracture of both bones of the right leg, at the junction of the lower and middle third. The tibia being fractured quite obliquely, and with not less than one inch of shortening. Dr. J. B. Owsley was summoned, and on arrival placed the leg in a modified Neil's fracture box, and next morning applied extension and counter-extension, by means of adhesive strips. It was alleged, without denial, that at the end of five weeks the fragments of the fibula had united by bony union. At the end of nine weeks, the fracture of the tibia not being repaired, Dr. M. Haines, of Seven Mile, was called in consultation. Dr. H. swears that he found very little deformity at the seat of fracture, that on careful measurement he found no more than one-fourth of an inch of shortening, and that ex-

tensive motion of the knee-joint was possible and was urged upon the patient. After two weeks' attendance Drs. Owsley and Haines were discharged, and Drs. Brown, Forster and Mallory, of Hamilton, were called to attend to the case. These worthy gentlemen were expected to do something for poor Flannigan. They were equal to the occasion. Dr. Mallory, who did not share the advanced surgical views of the other eminent experts, administered chloroform while they rode upon the leg, and directed four or five robust farmers how to exert themselves for the benefit of their neighbor and the reconstruction of his leg.

Thirteen weeks after this convention Flannigan was said to be cured. His leg was an inch too short. He had an enormous projection on his shin, to indicate the exact spot where the lower end of the upper fragment of the tibia had been. He had also a very serious ankylosis of the knee-joint and of the ankle-joint, to remind him of the intense inflammation produced by his muscular neighbors, under the guidance of Drs. Brown and Forster.

In due time Dr. Owsley brought suit for his bill, and obtained a judgement. On this Flannigan sued Owsley for damages for alleged malpractice, and, on trial of this issue, in April, the jury disagreed. A second trial was obtained, and it is to the result of this trial we ask attention.

The plaintiff alleges that Dr. Owsley was negligent in not "setting" the leg at his first visit. But it was found that the fracture was adjusted at his first visit, while experts agreed that surgical rules did not imperatively require the adjustment before the eighth or ninth day. An attempt to prove that there was no efficient extension and counter-extension of the limb, failed in the face of evidence, showing that the very common and well-approved method of extension, by adhesive strips, had been adopted, and with very good results, according to Dr. Haines' testimony.

A special feature of this trial lies in the plaintiff's demand that Dr. Owsley shall pay him for all the valuable time lost, and for the money spent after Dr. O. was discharged! More than this, Dr. O. is expected to pay damages for ankylosis

and deformity acquired at the hands of Drs. Brown and Forster, and the athletic gentlemen under their command.

The plaintiff's case has been so conducted that Drs. Brown and Forster have virtually been put upon trial. They claim that they found Flannigan with a fibro-ligamentous union of the fragments of the tibia nine weeks after the fracture! We need not say that the whole profession of Hamilton denied that such a state of affairs could have existed at such a time, and this unanimous testimony was fully confirmed by Prof. W. W. Dawson and Dr. C. S. Muscroft, of this city. Every medical witness, at the last trial, expressed the opinion that, in the case of Flannigan, such a fracture could not have been expected to unite within nine weeks, and that Drs. Brown and Forster simply meddled with a fracture that was in process of repair. These gentlemen claim that by their manipulation they caused the absorption of a band of "ligament" and secured bony union in thirteen weeks—a statement which was most disrespectfully scouted by every medical witness. They claimed also that a mal-adjustment of the bones had greatly impaired the patient's health, and that *immediately* after the operation his health improved; this also was declared impossible by the medical witnesses.

At the first trial of the case they summoned Dr. A. J. Howe, Professor of Surgery in the Eclectic College in this city. Unfortunately for them, Dr. Howe swore in a very clear and positive manner, that, while he might have treated the case differently, yet he believed Dr. Owsley was, at all times, clearly within sound surgical rules. For reasons, best known to themselves, the plaintiff's counsel did not call this witness at the second trial of the case.

Dr. Owsley claims that, at one stage of his treatment, his dressings were disturbed. After leaving the leg in a bandage with reversed turns he would, at his next visit, find it in a plain bandage, such as an amateur surgeon, of the Flannigan school, would naturally apply. He justly claims that such interference relieves him from all responsibility.

These are the main points of the case—a case so plain that, at the last trial, the defendant's counsel did not think it worth

their time to make any argument at all. Yet, after some hours of privacy, the jury awarded three hundred dollars damages to the plaintiff—a verdict which also compels Dr. Owsley to pay the costs of two expensive trials. A motion for a new trial is pending.

At the July meeting of the Butler County Medical Society the members will have an opportunity to discuss this interesting subject, and to ventilate their views in regard to the *let alone* plan of treatment in all cases of fracture not splintered, and bandaged with a bond and security for indemnity from suits for malpractice.

To show that something of the kind is really necessary we append the report of a similar suit, published in the Pacific Med. & Surg. Journal, June, 1876, but, which in its results, had a more fortunate issue for the surgeon.

SUIT FOR MALPRACTICE.

DR. M. W. FISH, }
versus } Alameda Co. Court, 21 April, 1876.
 EMILE KOWER. }

Colin Campbell, counsel for plaintiff, Hall McAllister, for defendant.

This suit, which has attracted considerable attention, was tried in the County Court and resulted in a verdict for plaintiff, after a four days trial.

It was brought by Dr. Fish to recover a bill, and was opposed on the ground of malpractice. This last was the real issue, and had defendant won, it would have been quickly followed by a suit for heavy damages. Originating in a Justice's Court, a verdict was given for Dr. Fish. The defendant appealed to the County Court, and it was tried with like result. The facts are briefly these :

On the eve. of 20 Dec., 1874, the defendant while intoxicated was thrown from his buggy ; when found he was apparently much injured about the left hip joint but was too much intoxicated to give any account of himself. Dr. Fish was called, failed to find any fracture, and regarding it as a case of contusion, ordered simply evaporating lotions, and left him for the night. On the

following day chloroform was administered, and a careful examination failed to detect any fracture. (Defendant's witnesses swore that the strength of four men was used to "pull the limb!")

On the 22d, Dr. Babcock was called in consultation. He testified that there was considerable muscular soreness, but the patient was able, *unassisted*, to raise the limb *from the hip*, at least six inches clear of the bed. Both surgeons testified that there was *no crepitus, no shortening, eversion or inversion*. The tenderness of the entire limb and the complete examination, under chloroform, of the previous day, seemed to render further manipulation uncalled for, particularly if there was an impacted fracture, which was the only lesion, it was thought, could exist with the symptoms present. Subsequent visits gave no reason to charge the diagnosis. Pressure on the trochanter gave no pain and the four symptoms above mentioned at no time existed. The patient was directed to get up and move out on crutches, there being no displacement and no need for retaining apparatus. He was a heavy man, a free liver, accustomed to out-of-door life, and the confinement was irksome.

On 1st of Feby. on attempting to bear his weight on the left leg, he was surprised to find sudden shortening. Dr. Fish was called and on the following day, Dr. Babcock. These witnesses testified that examination revealed the following: Lying on a hard bed, there was still no shortening, eversion or inversion of the foot; rotation, circumduction, abduction and adduction of the limb were perfectly performed and gave no creptus; pressure on the heel in the direction of the axis of the body produced *apparent* shortening *provided* no pressure was made on the trochanter on flexing the thigh; pressure on the knee did *not* produce shortening. When erect he could bear the entire weight of his body on the affected limb *if* strong pressure was made on trochanter, the holding the head of the bone in the acetabulum but if such support was withheld, the shortening was again produced and slight crepitus discovered. The diagnosis now was that at the time of injury the superior rim of the acetabulum was clipped off, that the capsular ligament held the fragment in place and that the action of the patient, bearing his weight on the limb caused, displacement of the fragment. As support to the trochanter prevented any displacement and enabled the patient to bear his entire weight on the limb, a retaining pad or bandage was ordered to be applied around the hip, exercise on crutches in the open air directed and the hope of a useful limb held out. This seemed satisfactory to the patient, but owing to the obscure nature of hip joint injuries and the great rarity of the lesion in question additional counsel was asked.

On 19th Feby., Dr. A. F. Sawyer was called. This distinguished surgeon made a most complete and exhaustive examination of Kower. When concluded he said that but for his confidence in the ability of Drs. Fish and Babcock and their assertion that they had discovered slight shortening and crepitus, he would be inclined to say that there had been *no* fracture; that he could discover *no signs of any*, but regarded it as a case of arthritic inflammation. He fully confirmed the treatment and thought that time would give Kower a "useful leg."

On 27th Feb., Kower called Drs. Zeile and Loehr, who discovered "*intra capsular fracture of the neck of femur*," placed the patient in Gibson's modification of Hagedorn's splint and kept him here for about three months. It was then discovered that the patient is a cripple for life, had ligamentous union and that the case was originally badly treated. On the dismissal of Drs. Fish and Babcock from the case, they presented a bill, payment of which was refused, with threat of suit. Therefore they were obliged to take the offensive, which forced Kower to claim malpractice, and this was the issue really tried. In Court, for the defence Dr. Zeile testified that he found *no* shortening, but eversion and intra capsular fracture, and added that had he been called at first he could not have prevented permanent lameness and ligamentous union. Dr. Loehr testified to shortening, *inversion* and intra capsular fracture. A Dr. Scott, graduate of Jefferson in 1870, (he who advertised to cure consumption by oxygen!) was very positive as to intra capsular fracture and malpractice; he had examined the limb sixteen months after the injury, without chloroform; could not be mistaken, his "*experience*" told him all about it. (Throughout the trial this witness sat by the defendant's counsel and prompted the examinations.) The only other medical witness for defense, was Dr. Thos. Bennett, who had examined the defendant once, sixteen months after the injury, without an anæsthetic, had *heard* crepitus and was positive as to the intra capsular fracture. He also testified that he knew nothing of the fracture diagnosed by plaintiff. Defendant, his wife and a son aged fifteen years, swore positively as to very bad surgical treatment, no examinations by the plaintiff, persistent shortening from the first, and evinced a general knowledge of surgery and treatment that was refreshing. On the other side, the plaintiff and Drs. Babcock and Sawyer who were in charge at first, testified to the fact as given above. Drs. Toland McNutt, Swan, Wilder, Green, W. P. Gibbons, Trenor, O'Neil, and McRae, testified to the hypothetical case put, that it could *not* be intra capsular fracture; that with symptoms as given by

the attending surgeons it *must* be fracture of superior rim of the acetabulum, and that whether the rim of the acetabulum or the neck of the femur were injured, or it had been a contusion only *with the symptoms presented* the treatment was proper and the result to be expected in any case. As stated, the jury were convinced that plaintiff had not been guilty of malpractice, that Kower was not as lame *outside* the Court room as *in*, to which one witness very pointedly testified, and that the four hours closing speech of his counsel, which was no argument, but a model of choice abuse and vulgar invective, could not move them.

We wish here to remark on the great stretch of the lawyer's privilege of abuse indulge in by Mr. McAllister and which most judges would have suddenly stopped. He devoted nearly one hour to personal abuse of Drs. Fish and Babcock, carried to a limit not justified by the ethics of the profession. In reference to Dr. Sawyer, he said, "I have had experience with that highwayman before," and again spoke of him as a "brigand." Dr. O'Neil had testified that the Museum of the Medical College of the University, contained a specimen of fracture of the superior rim of the acetabulum, but this learned and gentlemanly (?) counsel assured the jury that it contained no such specimen—"I don't believe it," said he, "he knew he could not produce it." And he grouped the other medical witnesses and made the sweeping assertion that "they did not hesitate to come here and *perjure* themselves to save their professional brethern." This style of summing up a case is not an evidence of greatness or of genius, in any sense that a gentlemanly lawyer should covet. It did not have the effect he desired on the jury, which was composed of evidently intelligent men. No lawyer has a right in analyzing conflicting testimony to bring in his *personal* belief and use the weight of his personal influence to carry his case. It bears the same relation to a high standard of professional ethics in law that quackery in advertising does to our standard of ethics. If Mr. McAllister desired to see that specimen of fracture that he says does not exist, he has only to call on the College authorities and he can be gratified.

In striking contrast to his effort, appears that of Mr. Campbell, who spent three hours in a gentlemanly and logical argument, reviewing the testimony, gaining no small credit for his able conduct of the case and winning the suit against such weighty odds, before a jury, as Mr. McAllister *was supposed to be*.

The case ends here, unless the defendant, not satisfied with his expenditures thus far, desires a suit for libel. He scoured

San Francisco for medical men to examine him and appear as prosecutors, with, as was shown, but poor success. The only mistake made by the plaintiff seemed to have been that he charged a ridiculously small bill. A more respectable fee would have taken the case to a District Court where it would be of record as a warning to patients who seek to evade just debts and an encouragement to the profession to push to the extreme point an honest bill when threats of malpractice are made.

*Proceedings of the Association of the Representatives
of American Medical Colleges, held at Philadelphia,
June 2d and 3d, 1876.*

A convention of representatives of numerous medical colleges of the United States was held in the hall of the Jefferson Medical College, of Philadelphia, June 2d and 3d, 1876, in pursuance of the following call:

LOUISVILLE, KY., May 15, 1876.

Following a general correspondence with the various medical colleges of the United States, the undersigned issue this call for a convention, to be held in Philadelphia, on Friday, June 2, 1876, four days in advance of the meeting of the American Medical Association. The object of the convention is to consider all matters relating to reform in medical college work.

That decided results may be reached, the faculty of each college is requested to send one or more delegates, clothed with *plenary* powers to determine final action on every question.

Should any college find it impracticable to send a representative, it is hoped that it will set forth fully by letter to the convention the views it may hold touching the suppression of existing evils and methods of practical improvement.

Officers of the following colleges have informally signified their hearty approval of the movement:

Jefferson Medical College, College of Physicians and Surgeons, N. Y., Bellevue Hospital Medical College, Ohio Medical College, Miami Medical College, Rush Medical College, Detroit Medical College, Louisville Hospital Medical College, Medical Department of University of Louisville, St. Louis Medical College, Keokuk Medical College, Cleveland Medical

College, Starling Medical College, Medical Department of Georgetown College, Medical Department of Columbian University, Long Island College Hospital, Medical Department of Syracuse University, Evansville Medical College, Indiana Medical College, Medical Department of University of Nashville, Atlanta Medical College, Mobile Medical College, Savannah Medical College, Augusta Medical College.

The convention will be called to order in the hall of the Jefferson Medical College at 11 o'clock A. M. on the day above named.

J. B. BIDDLE, M.D., Jefferson Medical College.

WM. H. MUSSEY, M. D., Miami Medical College.

JOHN T. HODGEN, M.D., St. Louis Medical College.

J. ADAMS ALLEN, M.D., Rush Medical College.

W. T. BRIGGS, M.D., Med. Dep't University of Nashville.

J. M. BODINE, M.D., Med. Dep't University of Louisville.

At the hour named the following representatives assembled:
Jefferson Medical College—Jrof. J. B. Biddle and Prof. S.

D. Gross.

Medical Department University of Pennsylvania—Prof. R. E. Rogers.

College Physicians and Surgeons of New York—Prof. Edward Curtis.

Medical Department University of Louisville—Prof. L. P. Yandell, Jr., and Prof. J. M. Bodine.

Hospital College of Medicine of Louisville—Prof. J. A. Larabee and Prof. T. C. Wilson.

Long Island Hospital Medical College—Prof. J. H. Raymond.

Medical Department University of Iowa—Prof. E. Clapp.

College of Physicians and Surgeons Syracuse University—Prof. H. B. Wilbur and Prof. Van Dyne.

Chicago Medical College—Prof. L. Curtis.

Medical Department University of Georgia—Prof. E. Geddings.

Indiana Medical College—Prof. T. B. Harvey and Prof. L. D. Waterman.

Medical Department University of Wooster—Prof. W. J. Scott.

Cleveland Medical College—Prof. J. H. Bennett and Prof. Heims.

Detroit Medical College—Prof. E. W. Jenks and Prof. L. Connor.

Starling Medical College—Prof. S. Loving.

Medical Department University of Vermont—Prof. H. D. Holton.

St. Louis Medical College—Prof. J. L. B. Alleyne.

Atlanta Medical College—Prof. W. F. Westmoreland.

Medical Department University of Nashville—Prof. W. T. Briggs.

Medical Department Vanderbilt University—Prof. T. A. Atchison.

Missouri Medical College—Prof. A. P. Lankford.

Keokuk College Physicians and Surgeons—Prof. J. J. M. Angier.

Columbus Medical College—Prof. J. F. Baldwin.

On motion of Prof. Yandell, Prof. J. B. Biddle was elected President of the convention, and on motion of Prof. Bennett, Prof. Leartus Connor was elected Secretary.

On motion of Prof. E. Curtis, it was

Resolved, That the action of the convention shall not be considered binding upon the colleges represented unless endorsed by their respective faculties.

On motion of Prof. Gross, it was

Resolved, That a committee be appointed to submit business for the consideration of the convention, to report at the afternoon session.

The chair appointed as this committee, Profs. Bodine, Gross. Geddings, Holton and Scott.

The convention adjourned until 4 P. M.

Pursuant to adjournment, the convention reassembled at 4 P. M., the President in the chair.

The minutes of the last meeting were read and approved.

Prof. Bodine, from the committee to prepare business for the convention, reported the following questions for its consideration :

1. Shall the beneficiary system, with its present abuses, be condemned or endorsed?

After discussion, on motion of Prof. E. Curtis, the following preamble and resolutions were adopted with reference to question first:

Whereas, The practice of reducing or remitting in individual cases the established fees of a college has the objectionable feature of discriminating between students who may be equally deserving, and opening the door to possible gross abuses; therefore

Resolved, first, That this convention regards the above privilege as one to be deprecated in general, and, if put into practice at all, to be exercised both rarely and reluctantly, and only in unusual circumstances, and after unsolicited application by proven deserving candidates.

Resolved, second, That anything like a wholesale system of such reduction or remission of established fees, or any open solicitation of recipients of such favors be regarded as in the highest degree improper, and that any college indulging in such practices deserves to forfeit its place on the *ad eundem* list of medical colleges.

Question 2. Shall two consecutive courses of lectures in one year entitle students to become candidates for graduation?

On motion of Prof. E. Curtis, it was

Resolved, That it is the opinion of this convention that no two consecutive sets of lecture tickets shall be regarded as fulfilling the usual prerequisites of instruction for graduation, where the time between the beginning of the first course and the end of the second is less than fifteen months.

Question 3. Shall any faculty under any circumstances issue a diploma not bearing the graduate's name?

On motion of Prof. Waterman, it was

Resolved, That no medical faculty should issue a diploma not bearing the graduate's name.

It was ordered that the meeting of the convention shall be at 10 A. M. and 4 P. M. On motion, the convention adjourned.

The convention reassembled on Saturday, June 3d, at 10 A. M., the President in the chair.

The minutes of the previous meeting were read and approved.

On motion of Prof. L. P. Yandell, Jr., the regular order of business was suspended, and communications were read from

the faculties of the following medical colleges: Louisville Medical College, Kentucky School of Medicine, Evansville Medical College, Rush Medical College, Medical Department University Louisiana, Medical School of Harvard University, Savannah Medical College, Cincinnati College of Medicine and Surgery, Medical College of State of South Carolina.

On motion of Prof. Atchison, these communications were placed on file.

Question 4. Shall this convention resolve itself into a permanent organization?

On motion of Prof. Atchison, it was

Resolved, That the question be referred to a committee of five, to report at the afternoon session.

The chair appointed as this committee Profs. Atchison, L. Curtis, E. Curtis, Yandell and Scott.

On motion of Prof. Rogers, the President and Secretary of the convention and Prof. Atchison were appointed a committee on publication.

Question 5. Is there any reason why the customary diploma fee shall be abolished?

On motion of Prof. Rogers, it was

Resolved, That it is the sense of the convention that the diploma fee should not be abolished.

Question 6. It is advisable to adopt a graded course of study?

On motion of Prof. Bodine, the following preamble and resolution were adopted in reference to this question:

Whereas, A knowledge of the elementary branches of medicine should precede a study of the practical branches.

Resolved, That, in the hope of inducing students to prolong and systematize their studies, this convention recommends to all medical colleges to offer to students the option of three courses of lectures, after a plan similar to the following: Students who have attended two full courses of lectures on anatomy, chemistry, materia medica and physiology, may be examined upon any of these subjects at the end of their second course. During their third course such students may devote themselves to the lectures upon the theory and practice of medicine, surgery, obstetrics and diseases of women and children, upon which subjects only they shall be examined at

the final examination for the degree of M. D.—their standing, however, to be determined by the results of both examinations.

On motion, adjourned till 4 P. M.

The convention re-assembled at four P. M., the President in the chair. The minutes of the last meeting were read and approved. Prof. Atchison, from the committee to whom the subject of permanent organization was referred, reported the following resolutions:

Resolved, 1. That this *convention* now proceed to form a Provisional Association of American Medical College, under its present officers.

Resolved, 2. That when the Association adjourns, it shall adjourn to meet at the call of its President.

Resolved, 3. That the various medical colleges be invited to take into consideration the project of forming, at the next meeting of this Provisional Association, a permanent Association of American Medical Colleges.

Resolved, 4. That for the furtherance of this object, a committee of three be appointed at this meeting to confer by letter with the various colleges, and invite their views on the proper object and plan of such proposed organizations; and upon the receipt of the same, to draft a constitution and by-laws for a permanent Association, to be submitted at the next meeting of this Association.

Resolved, 5. That the advisory resolutions upon matters of college policy passed by this convention be printed and forwarded to all regular medical colleges in the United States for their consideration.

The chair appointed as committee to carry out the foregoing resolutions Prof. T. A. Atchison, Prof. Edward Curtis and Prof. L. P. Yandell, Jr.

These resolutions were adopted, and the convention resolved itself into the Provisional Association of American Medical Colleges.

Question 7. Is it proper for a regular college to have any kind of alliance with homeopathy?

On motion of Prof. Atchison, it was unanimously

Resolved, That in the opinion of this Association, medical colleges ought not to recognize or hold fellowship with any school or its alumni in which irregular medicine is taught as a part of the curriculum?

Question 8. Can college fees be made uniform?

On motion of Prof. Geddings, this question was referred to a committee of five, to report at the meeting of the Association to be held in 1877.

The chair appointed Profs. Geddings, Gross, Angier, E. Curtis and L. Curtis, this committee.

On motion of Prof. Biddle, the following resolution was unanimously adopted:

No degree in medicine should be conferred under any circumstances, except after an examination in person of the candidate upon all the branches of medicine.

On motion of Prof. Atchison, the thanks of the Association were tendered to the President for the able and impartial manner in which he had discharged the duty of the chair.

On motion of Prof. Yandell, the thanks of the Association were tendered to the Secretary for his efficient services.

On motion of Prof. Larrabee, the thanks of the Association were tendered to Jefferson Medical College for the use of the hall and other courtesies.

On motion, the Association adjourned to meet at the call of the President.

J. B. BIDDLE, M. D. *President*

LEARTUS CONNOR, M. D., *Secretary*.

Dr. Joseph Carson has, on account of ill-health, resigned his professorship of Materia Medica in the University of Pennsylvania. Dr. Horatio C. Wood will probably succeed him.

Dr. J. T. Whitaker has resigned the editorial management of *The Clinic*, and Dr. L. R. Longworth assumes the tripod. Dr. J. G. Hyndman retains his position as assistant editor of that journal.

Dr. C. G. Comegys, of this city, was recently elected an Associate Member of the College of Physicians, of Philadelphia.

Reviews and Notices.

Nervous Disorders and Insanity—Monthly Review.

By Prof. D. A. MORSE, M. D.

We will present a brief outline of the most important articles contained in the numbers of some of the Quarterlies for the first quarter of the year, 1876.

The January number of the *Journal of Mental Science*, London, is a very interesting number. The volume, however, begins with the April number—this ending the year—containing 158 pages.

The first article is from Dr. Thomas Laycock: "Reflex, Automatic and Unconscious Cerebration. A History and Criticism."

Dr. Laycock is an advocate of "unconscious cerebration." Dr. W. B. Carpenter has also written much upon the same subject, and has also lectured upon it, as the one delivered Dec. 1, 1871, in Manchester, England, entitled, "Unconscious Action of the Brain."

What seems to call out Dr. Laycock is the essay in the *Journal of Mental Science* for October, 1875, by Dr. Ireland, entitled, "Can Unconscious Cerebration be Proved?" In this it is said: "In any case the theory of unconscious cerebration derives no support from physiology. It is a child of the old metaphysics to be brought forward and repelled by the study and analysis of mental operations, cognisable by internal examination."

This involves a full knowledge of the metaphysical application of the term *consciousness*.

Dr. Laycock refers to the expression of Dr. Ireland, "internal examination," and says: "The question as to method thus raised involves an answer to two other questions, viz: (1). Do all men use their brains in thinking and doing, so that, without their brains, they can neither think nor do? And (2). If this be answered in the affirmative as a fact of experience, then is consciousness a cause, or is it a coincident and a result of these changes in the brain-tissue, upon which all manifestations of mind depend, and itself due to an 'immaterial' cause?"

By consciousness we understand that knowledge the mind takes of its own operations. By *unconscious* cerebration, mental activity of an intellectual nature of which action the mind takes no knowledge. Thus it has been claimed that an unsolved problem has unconsciously been solved, the mind taking cognizance only of the result, but that a series of mental efforts were necessary to produce these results.

Ordinarily, unless we fix the attention by an effort of the will and preserve our knowledge of the mind's action we accomplish nothing by way of coherent thought. Can thought be coherent

and carried through complex and intricate trains in the state termed unconscious cerebration? This, Laycock and Carpenter maintain, and others oppose.

Drs. Carpenter and Laycock contend for priority in the publication of the discovery of unconscious cerebration.

In 1840 Dr. Laycock, in his treatise upon "Nervous Diseases of Women," headed one chapter "The Instinctive Actions in Relation to Consciousness: The Brain Subject to the Laws of Reflex Action." He claims he adopted his views in 1837 and 38.

Dr. Farady wrote "On the Reflex Function of the Brain," in 1845. Dr. Engledue, in 1842, first applied the term *crebration*. Dr. Laycock claims that Dr. Carpenter made his investigations as late as 1851.

The chief ground upon which these theories rest are that the brain is only a ganglion, or composed of ganglionic masses, like the spinal cord that its action may be involuntary, hence unconscious. Thus Laycock says, p. 107, Treatises on the Nervous Diseases of Women, 1840, the importance of these doctrines is apparent, they corroborate the truth of the proposition already laid down, that the cranial ganglia, although the organ of consciousness, are subject to the same laws as those which govern the other ganglia, the diffused nervous system of animals, and the vital mechanism of plants.

In the April number the subject is completed.

For a synopsis of Dr. Carpenters views, with cases illustrating them, see the lecture we have referred to above, published at Boston, by Estes and Lauriat.

Herbert C. Major presents an article, p. 498, of this number entitled "Observations on the Brain of the Chacma Baboon." He says:—That while recognizing external differences which distinguish in the most certain manner such brains as that of the orang or chimpanzee from that of man, we are as yet baffled in our efforts to penetrate further. * * The observations of Beale, Clarke, Meynert and Vander Kolk, show that in such animals as the sheep, cat, dog, and rabbit, the nerve cells of the cortex differ very decidedly from those in man, and my own experience is quite in accordance with theirs."

The general conclusion is from microscopic examination that in our limited knowledge we can not penetrate far enough to designate the differences in the ultimate structures of the animal brain and man. The article is illustrated by eleven lithographic plates.

Mind in Plants. This is the title of an article by Launder Lindsay, M. D., etc.

He has found as great difficulty in drawing any definite or definable psychial line of demarcation between plants and the lowest animals as between the higher animals and man. In other words, it appears that *certain attributes of mind, as it occurs in man, are common to plants.*

He refers more especially to *insectivorous or carnivorous plants.* The properties common to these plants and animals have been

described as "instinct," as for instance Darwin, 1875, Hooker, 1874, Balfour in 1875.

Dr. Lindsay gives 19 "concomitants of mind as it occurs in animals—which are nevertheless common to plants." Among these are respiration, circulation, nutrition, sleep, etc., etc.

It is wonderful how many phenomena are exhibited by plants that are common to animals and man. Burdon Sanderson has, in 1875, demonstrated the electrical phenomena that follow irritation of the leaf of the *dionæa muscipula*.

In Reichert and DuBois, Reymonds *Archiv für Anatomie, Physiologie und Wissenschaftliche Medicin*, for May, 1876, is a lengthy article upon the *Anatomie des Blattes der dionæa muscipula* (leaf of the *dionæa*). In fact the whole number is devoted to it (128 pages with many steel plates,) and the article not concluded. Kurtz presents the first 30 pages, Munk nearly 100 upon the electrical phenomena.

In experiments with drugs upon the *dionæa muscipula* those of Thos. Balfour's (the garden) deserve especial attention. He has shown that chloroform, opium and other poisons have the same effect upon these plants as upon animals. This article is very interesting and should be read by every one who feels any special interest in the subject. We would also expect the same reader to feel more than repaid with the perusal of Dr. Lindsay's article.

Skæ's Classification of Mental Disease is the title of a paper by Dr. Clouston, Superintendent Royal Edinburgh Asylum.

In the October number J. Crichton Browne, wrote a criticism of Skæ's Classification. This article of Clouston's is a reply. Browne advocates Esquirol's Classification, and says, day by day it becomes more apparent that we shall never accurately make out the molecular changes which correspond with mental aberrations, and are still as far as ever from mounting a delusion in Canada balsam or from detecting despondency in a test tube." Browne maintains that pathological changes can furnish no direct assistance in classification. Dr. Browne believes symptoms a better guide, and presents his objections to Skæ's classification in formula as follows:

1. Skæ's system has no principle of construction—no bottom.
2. It is of no service in practice.
3. It withdraws attention from clinical observation.
4. It is incomplete.
5. There is no gradation, serial arrangement or harmony in it.
6. It has a refractory ward.
7. Causes are confused with consequences.
8. Causes are assigned which are no causes.

Skæ's Classification is based upon *causes*. So also is that of the French writer, Morel: 1. Cases of Hereditary Transmission; 2. Toxic Insanity; 3. those resulting from the transformation of other Neuroses; 4. Idiopathic Insanity; 5. Sympathetic Insanity; 6. Dementia.

As neither of these classifications are presented in the article we will give also that of Skae:—

Idiocy,	} Intellectual,	Climacteric Mania,
Imbecility,	} Moral,	Ovariomania, (uteromania),
Epileptic Mania,		Senile Mania,
Mania of Masturbation,		Phthical Mania,
Mania of Pubescence,		Metastatic "
Satyriasis,		Traumatic "
Nymphomania,		Sunstroke "
Hysterical Mania,		Syphilitic "
Amenorrhœal Mania,		Delirium Tremens,
Sexual Mania,		Dipsomania,
Mania of Pregnancy,		General Paralysis of the Insane.
Mania of Lactation,		Idiopathic Mania, { Sthenic,
Mania of Childbearing,		{ Asthenic.

An article by Dr. Yellowless on the Plea of Insanity in cases of Murder, is a review of the case of Tierney, tried at Glasgow Circuit Court, September, 1875, for the murder of Campbell. We will hereafter present a review of these cases as reported in the late journals, there are quite a number of them and to review them in their relation to each other will require more space than we can devote to them at present, the same may be said of the next article: *Case of General Paralysis* complicated with severe unilateral epileptiform attack, temporary hemiplegia, aphasia, etc.

A considerable amount of new literature has appeared upon General Paralysis recently which we desire to make the basis of a review, chief of which however is the work of Bonnet, of Paris, and that of Dr. Mobeche; on the Condition of the Eyes in General Paralysis. In the *Irrenfreund*, No. 1, 1876, is a review of this (*Das Auge der Paralytiker*) which deserves attention in connection with the above.

In our report to the Ohio State Medical Society we have considered the state of the pupil, eyebrows, etc. Here we have additional observations given, we presented then all that had been determined to that time.

In the April number of the *Journal of Mental Science*, the main articles, aside from that of Dr. Laycock, are the *Hypodermic Injection of Morphia in Insanity*, by John M. Diarmid M. B.—; On the past and present provision for the insane in the United States, by Daniel Hack Tuke; On the use of analogy in the study and treatment of mental disease, by J. R. Gasyuet, M. B.; A visit to an Insane Colony, by P. Maury Deas, M. B.

Notes on Lunacy in British Guiana, by James S. Donald, M. B.; some observations on general paralysis by Isaac Ashe, M. D.

Diarmid sums up his observations upon morphia as follows:

"1. Of all single drugs, opium, or its alkaloid morphia, is the most potent and reliable hypnotic and sedative in the treatment of insanity.

"2. Morphia, administered subcutaneously, is more rapid in its action and more powerful in its effects than when given by the mouth.

"3. By hypodermic injection, not only irregularity in action dependent on gastric conditions, but digestive disorders incident to the stomachic exhibition of morphia are avoided.

"4. The subcutaneous is the easiest method of giving opiates when a patient refuses to take medicine, and always the most exact.

"5. Of various adjuncts to opiates, warm baths are the most useful.

"6. Attacks of acute and recurrent mania, and paroxysms of excitement in chronic mania and dementia, may be cut short in the out set, or beneficially controlled, by morphia subcutaneously administered.

"7. In such cases (*i. e.* acute mania, &c.), the tongue becomes clearer, and the appetite, as a rule, improved by this treatment.

"8. Morphia so administered has no marked tendency to cause constipation; and even in melancholia by alleviating the misery, and thus lessening the waste of nervous force, it predisposes to improvement in appetite and digestion.

"9. Vomiting, the only unpleasant symptom apt to occur with the hypodermic treatment, is generally due to over eating or digestive disorders existing previous to injection, and may, by care at the time of administration, be avoided; and when it happens, is frequently beneficial rather than otherwise.

"It must, however, be borne in mind, that many of the phenomena referred to are still *subjudice*, and that the opinion enunciated may require considerable modification as the result of further inquiries."

An Introduction to Pathology and Morbid Anatomy. By T. GREEN, M. D., London. Second American, from the Third Revised and Enlarged English Edition. Illustrated by one hundred and eleven engravings on Wood. Philadelphia; Henry C. Lea, Publisher. For sale by Robert Clarke & Co. Price \$2 75.

There is no branch of medical science that has made more rapid strides during the past decade than Pathology. In fact it has come to be regarded as the basis and foundation of clinical medicine and surgery.

This work by Dr. Green is the only one published in the English language, that is deserving of being considered a standard text-book on this subject.

The work is tersely written and at the same time complete and sufficiently elaborate for the use of both specialists and general practitioners. The first part of the book is devoted to the consideration of morbid processes which are characterized mainly by alterations in nutrition; the second, to those in which an altered nutrition is associated with certain changes in the blood vessels and circulation; and the third, to changes in the blood and circulation alone.

In considering the several morbid processes, the general pathology of each process is minutely described and then the same process as it occurs in the different organs and tissues. To the present and future student of medicine this book or one similar is indispensable, and no physician who proposes to keep up with the times will attempt to do without it.

Lectures on Nursing. BY WILLIAM ROBERT SMITH, Resident Surgeon, Royal Hants County Hospital, Philadelphia: Lindsay and Blakiston. For sale by Robert Clarke & Co.

This little volume of 225 pages is replete with practical suggestions in regard to the care and treatment of the patient, by the nurse. Every practicing physician knows how very often his success in treatment of a patient, is largely due to the intelligent carrying out of his instructions by the nurse, and how frequently his failures may be attributed to the misfortune of having his patient cared for by an incompetent or over officious attendant, and will consequently appreciate a work of this character. These lectures were delivered in a training school for nurses, and contain instructions in regard to the management and care of the sick room, care of the bed, and clothing, preparation of food and delicacies, bandaging, administration of medicine, cupping, leeching; what to do in case of accidents, emergencies, how to prepare poultices, introduce setons, give baths, take temperature, state of pulse, circulation, stop hemorrhage, reduce dislocations, attention to children, etc., etc. It is a book that should be in the hands of not only every physician, but of nearly every family.

The Normal Standard of Woman for Propagation. By NATHAN ALLEN, M. D., L.L. D., Lowell, Mass. Pages 39.

This is a very readable and instructive paper, and many of the conclusions drawn by the author from the study of vital statistics, are, without doubt, true ones. There can be no possible doubt that the more highly educated a community becomes the less will be its birthrate. This is the cause of the decline of the birthrate in Massachusetts. This idea does not presuppose the *physical* degeneracy of the American women, we differ with the author on that point. The truth is, the average American woman is too highly educated in sexual physiology. *She knows how to avoid impregnation.* If a law were passed forbidding the use of female syringes *immediately after coition*, the result would be an increase of the American birthrate, however, such a law would be out of the question. Cleanliness is charming, but it is the uncleanly population which breed and multiply. The idea that the American women are degenerating physically, or morally *is all bosh*. Compared with the women of other countries (physically and morally), the American woman is more than their peer.

T. C. M.

Micro-photographs in Histology, Normal and Pathological. By CARL SEILER, M. D., in conjunction with J. G. Hunt, M. D., and Joseph G. Richardson, M. D. Philadelphia: J. H. Coates & Co., Publishers. Numbers 1 & 2. Price 60 cents per number. Published monthly.

This publication is a valuable aid to physicians in making microscopical examinations of pathological specimens.

The pictures are photographs obtained directly from microscopic specimens, and are accompanied by a brief descriptive text. The two numbers before us contain plate 1, section of skin cut parallel to the surface, and transversely through the hair-bulbs; plate 2, epithelioma; plate 3, pavement epithelium; plate 4, endothelium; plate 5, elastic connective tissue; plate 6, scirrhus of mammary gland; plate 7, non-elastic connective tissue; plate 8, connective tissue corpuscles; when seen the value of these plates will be at once appreciated.

A Treatise on Surgery, Its Principles and Practice. By F. HOLMES, M.A., CANTAB., etc. With four hundred and eleven Illustrations. Philadelphia, Henry C. Lea. For sale by Robt. Clarke & Co. Price \$7 00.

This work is intended by the author to be an introduction to his great and elaborate system of surgery. Mr. Holmes is so well known to the Medical Profession, and surgeons particularly, that it is scarcely necessary for us to say, that a work of this character written by him, will at once be recognized as a surgical authority, and take its place in the line of recognized text-books in our Medical Colleges. We are especially gratified in noticing that both Continental and American surgeons, are credited with their pathological opinions and modes of operating, quoting from the various journals and latest works of those countries.

The book is not large, but of a convenient size for students, and most general practitioners, who do not feel that they can afford to purchase a large system of surgery.

An Elementary Treatise on Diseases of the Skin. For the use of Students and Practitioners. By HENRY G. PIFFARD, A. M., M. D., Professor of Dermatology, University of the City of New York, etc., with illustrations. London and New York: Mackmillan & Co., Publishers. For sale by Robert Clarke & Co. Price \$4 00.

This volume is an excellent text book for students. And while the author modestly claims for it a position as an introduction to the more elaborate and extensive works of other authors, we are

convinced that most practitioners will find it one of the most useful books they can place in their libraries. The author's style is exceedingly plain, making his subject easily understood. The text is finely illustrated by cuts and plates, many of them original, and taken from cases in the author's practice. The photo-micrographs are admirably adapted to illustrate sections of diseased skin.

Atlas of Skin Diseases. By LOUIS A. DUHRING, M. D., Professor of Skin Diseases, in the Hospital of the University of Pennsylvania, etc. Part 1. Philadelphia: J. B. Lipincott & Co., Publishers. For sale by Robert Clarke & Co. Price \$2 50.

This is the first of a series of parts published in Atlas form, representing all those diseases which the general practitioner is most likely to encounter.

This number contains plates illustrating Eczema, Psoriasis, Lupus Erythematosus, Syphiloderma (Pustulosum). The plates are chromo-lithographs very finely executed, and are designed to represent cases as they appear in the clinic or consultation room, the descriptive text contains the clinical history of cases, with treatment accompanies each plate.

Archives of Ophthalmology and Otology. WM. WOOD & Co., N. Y.

Vol. V. No. 1, of this valuable journal is fully up to the high standard of its predecessors. It is now a quarterly journal, and is published simultaneously in German and English. Of the twelve articles in the number, six were contributed by our own spiritualists and six by foreign authors.

We are in receipt of the Prospectus of the *Archives of Clinical Surgery*. Edited by EDWARD J. BERMINGHAM, M. D. With Rutledge & Co., New York, Publishers. The Archives is to appear monthly. Each number to contain 40 pages. Subscription \$4 00 per annum.

Transactions of the American Ophthalmological Society. Eleventh Annual Meeting, July, 1875. Wood & Co., N. Y.

SALICYLIC ACID FOR OFFENSIVENESS OF BREATH AND EXPECTORATION.—DR. DA COSTA, prescribes salicylic acid, five grains, dissolved by means of a drachm of glycerine in half an ounce of water, taken three times a day, in cases where the breath or expectoration are offensive. If internal administration does not accomplish the desired result, it can be used with the atomizer in a solution of similar strength.—[*Medical and Surgical Reporter*.

TAPPING FOR PLEURITIC EFFUSION.—(*The Lancet*, February 5, 1876).—Dr. A. T. H. Waters asserts that tapping should be done in all cases, *of whatever duration*, whether acute or chronic, where the accumulation of fluid seriously compromises respiration, and especially if there have been any sudden attacks of dyspnoea. Again, whenever an extensive effusion has lasted some weeks, and shows no signs of diminution from general treatment, tapping should be resorted to, whether dyspnoea is present or not. It is not necessary to remove the whole of the fluid; indeed, it is better not to do so if the effusion is large. The removal of a portion of the fluid usually has the desired effect, and seems to stimulate the process of absorption of the remainder, and to cause the general measures to act with greater success. There is one rule which should always be observed. It will be found that the patients, after a certain amount of fluid has been withdrawn, will often complain of a sensation of constriction across the chest or epigastrium, or of pain. Under either of these circumstances the operation should be at once stopped.

As regards the site for tapping, the rule is to find the inferior limit of the sound lung behind, and to tap two inches higher than this on the pleuritic side, in a line perpendicular from the inferior angle of the scapula.

With ordinary care, and especially by using the aspirator, no air need enter the chest in the operation.

CURIOUS INCOMPATIBILITY.—Chlorate of potassium and iodide of potassium are both entirely harmless in suitable doses. Furthermore, these two salts do not react upon each other in solution, even at a boiling heat. Yet it has been proved that when they are administered together, they do combine in the stomach, producing iodate of potassium, which is poisonous. M. Melsens found that dogs could take the chlorate or iodide in doses of five to seven grammes with impunity, but that a mixture of the two killed them in a few days, with the symptoms of poisoning by iodate of potassium. This combination must therefore be avoided. Indeed, as a general rule, the chlorate is so unstable, and so ready to give up its oxygen, that it can not safely be combined with any substance capable of oxidation.—[*Amer. Jour. of Pharmacy*.

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J. C. CULBERTSON, M. D., Editor.

T. M. STEVENS, M. D., Ass't. Editor.

VOL. XIX, AUGUST, 1876—No. 8.

Original Communications.

Art. 1—Pathology and Treatment of Puerperal Convulsions.

Read before the Dubois County Medical Society, May 11th, 1875. By
DR. CHAS. KNAPP, Ferdinand, Ind.

In order to treat diseases rationally it is necessary to have correct ideas of their nature and pathology; where the pathology of a disease is not yet understood, it behooves us to examine carefully all theories that may be propounded, from time to time, by men who are regarded as authorities in their respective departments. It is the object of this paper to bring prominently before the members of this society what I believe to be the latest theory of the pathology of puerperal convulsions.

These convulsions have interested and puzzled the medical profession from the time of Hippocrates to the present day; and though many theories have been proposed to explain their nature, it can not be said that a single one of them has yet proved entirely satisfactory.

Perhaps the oldest theory is that puerperal convulsions are due to plethora or to congestion of the brain. This is the

theory that gave rise to the practice of blood-letting as *the* therapeutic recourse, and was held as applying to one class of cases by Hippocrates. From the time of the "father of medicine," to the time of the discovery of the uræmic theory, this doctrine held sway, more or less, over the minds of the profession, and, even now, many advocates of it can be found. But that it can not be accepted as the true explanation of the cause of puerperal convulsions, will be made evident by quoting the words of a writer in the *Am. Jour. of the Med. Sci.* No. for April, 1871, he says:

"If determination of blood to the brain can produce convulsions, they must arise either from inordinate nutritive activity, created by the presence of more blood in the capillary and areolar tissue than is required for the usual functional energy of the organ, and which is employed in the creation of motor force to be expended on the muscles, or from irritation connected with pressure upon the motor tract through engorgement of the vessels."

"It may be asserted that when an organ is actively supplied with arterial blood, its functional energy is promoted so long as there is free egress to the fluid through the return vessels, and this applies to the brain, the operations of which may be quickened, but not abnormally. When, however, the balance of the circulation is lost in the vessels, and they become turgid with blood, there occurs confusion of ideas, an interruption of the mental process an obtuseness of the senses, suspension of volition, and a tendency to coma. This condition may terminate in apoplexy, as in cases of hypertrophy of the heart. Muscular activity is not engendered under such circumstances; or, as stated by Romberg, attacks of the kind are accompanied by weak convulsions. As a cause of convulsions the increase of arterial blood in the brain can not be admitted. They do not arise from nutritive activity."

"The question of pressure has been ably discussed by Dr. Burrows, who has shown not only its utility in connection with the activity of the brain, but that, when excessive, it may oppress that organ, and suspend its functional operations. The ordinary result of congestion of the brain is a comatose state, transition from coma to apoplexy is easily accomplished and may be induced either by determination of blood to the head, or by retention of blood in the brain. It is thus seen that pressure from congestion is not to be considered as a cause of convulsions, but, on the contrary, is productive of an opposite state, viz: that of a coma."

It will be remembered, moreover, that physiological exper-

iments have demonstrated that the opposite condition, viz: anæmia of the brain, produced by bleeding animals to death, readily produces convulsions.

But let us now examine the uræmic theory, which is held by a very large number, perhaps a majority, of medical men at the present day.

When, in the early part of this century, the connection between dropsy, albuminuria, and diseases of the kidneys was first pointed out, the impulse given to the study of these diseases soon brought out the doctrine of uræmia to explain the nervous phenomena peculiar to these cases, and this uræmic doctrine was enthusiastically received by a great majority of the profession as applying, also, to the convulsions peculiar to the pregnant female. Indeed, the matter seemed for a while settled almost to a demonstration.

It was found that pregnant women are peculiarly liable to dropsy and albuminuria, and that, generally, in those cases in which convulsions occur, these symptoms, are present in a very marked degree, and on analyzing the urine for urea, this excrementitious principle was found diminished in amount to a degree, generally in correspondence with the amount of albumen in the urine. Nothing was simpler than to infer an accumulation of urea in the blood, and to attribute to this the production of the eclampsia.

Though this doctrine seems, indeed, very plausible, and has been, for a time, sanctioned by the most eminent men in the profession, yet the evidence against it is such, that it must now be considered as entirely unfounded.

The principal objections to it are. 1st. Careful chemical analyses of the blood of albuminuric patients, as made by Becquerel, Quevenne and others, have failed to demonstrate an accumulation of urea in it; and, 2d. Injections of urea, dissolved in water, into the blood, as made by Bichat, Claude Bernard, Frerichs, Hammond, and others, have failed to produce convulsions. Urea has even been used as a diuretic in the human subject, without producing deleterious results.

These circumstances led pathologists to modify the theory in question, and it was Frerichs who first proposed the theory (subsequently accepted by Litzmann, Braun and others), that the urea is transformed in the blood into carbonate of ammonia, and that this substance produces the convulsions. This doctrine is still largely held in Germany, but I am not aware that it has many advocates in this, or in any country outside of Germany.

“Since the theory of Frerichs was first promulgated, however, it has been ascertained by Richardson and Hammond,

that ammonia naturally exists in the blood of healthy animals; and all subsequent observers (with the sole exception of Petroff) have failed to discover in the blood of animals rendered uræmic by the removal of their kidneys any larger amount of ammonia than exists in the healthy state. It has been likewise shown that other substances than carbonate of ammonia (chloride of sodium, urine, and urea) are capable, when injected into the blood, of evoking comatose and convulsive phenomena."*

It is very probable that the convulsions in these instances are due to the manner in which the injections are made; if they are thrown *suddenly* and *forcibly* into the circulation, they will produce convulsions, though the substances employed be, of themselves, innocuous.

Other modifications of the uræmic theory have been offered. Thus, in accordance with the recent experiments of Oppler, Schottin, Perls, and Zalesky, the primary products of tissue—metamorphosis-creatinine, creatinine, and other extractives, are the substances, upon an accumulation of which, the uræmic manifestations are supposed to depend.

We come now to the anæmic theory and its modifications; the theory to which I wish especially to call attention.

It has already, incidentally, been remarked, that sudden abstraction of a large amount of blood will produce convulsions; but it is evident that eclampsia is not, ordinarily, produced in this sudden manner. The anæmia peculiar to the pregnant female is developed slowly, and can not be called a pure and simple anæmia; it is, properly speaking, a hydræmia, and we must, therefore, call our theory the Hydræmic Theory.

But hydræmia is not the only factor in the production of the motor disturbances; another factor is increased blood pressure.

Traube, who is the father of this theory, contends that by the watery condition of the blood, which results from the loss of albumen, and by the simultaneously-developed hypertrophy of the left ventricle, causing increased blood-pressure, a predisposition to interstitial transudations is developed. If now, by any cause, such as muscular exertion, or the pains of labor, the lateral pressure in the vascular system is increased, transudation through the cerebral capillaries takes place, and gives rise to œdema of the brain.

"This œdema causes compression of the minute cerebral vessels, and determines an anæmic state of brain, and thereby convulsions and coma."

* Roberts on Urinary and Renal Diseases. Second American Edition. Page 430.

He is further of opinion that the symptoms are of a comatose character when the œdema and anæmia effect the hemispheres; and convulsive, when the central ganglia are the parts effected.

In justification of this theory a good deal could be said; thus, as proving that a watery state of the blood is peculiar to the pregnant female, the analyses of Becquerel and Rodier may be cited. "These experimenters examined the blood of nine females of all conditions and constitutions, between the fourth and seventh months of utero-gestation, and between the ages of 20 and 41 years. The alterations determined by them were, diminution in the density of defibrinated blood, diminution in the density of the serum, increase in the proportion of water, very notable diminution of the globules, slight increase of the fibrin, diminution of the albumen of the serum, increase of fatty phosphureted matter, which was in general seen most abundant when the blood was most impoverished."*

The loss of albumen, when the kidneys become effected, undoubtedly increases this condition of hydræmia very materially, and it is very probable that the deleterious influence, which albuminuria produces, consists in this watery state of the blood, and in the malnutrition of the nervous system, to which it gives rise.

Now, this mal-nutrition of the nervous system, though not referred to by Schröder † —the author to whom I am indebted for the knowledge of Traube's theory—I am convinced, plays an important part in the production of eclampsia. It produces a state of the nervous system called by some authors convulsibility, by others erithismus, that is, a predisposition to convulsions; a state in which the true exciting cause, anæmia of the brain, acts with great readiness and promptness.

Most of the recent writers on the disorders of the nervous system assume this state of convulsibility to exist in all forms of convulsions, though the manner in which it is produced in some of them, as for instance in epilepsy, is not as intelligible as in the case of eclampsia. Thus Reynolds, in speaking of epilepsy says:

"1st. That the seat of the primary derangement is in the medulla oblongata, upper portion of the spinal cord and vasomotor system of nerves."

"2d. That the derangement consists in an increased and perverted readiness of action of these organs."

* Am. Journ. Med. Sci., April, 1871, p. 452.

† Lehrbuch der Gebarts huelle. 4te Auflage, 1874, p. 658 et seq.

Indeed, it may be stated, as very probable, that all modes of perverted nerve-action are due, not to excessive nutrition, as one would suppose from the violence of their manifestations, but to mal-nutrition, or to want of proper nourishment. It seems that the nervous tissue, when not properly nourished, becomes unstable, as Dr. J. Hughlings Jackson expresses it, and discharges its functions in an excessive and perverted manner.

Dr. Wilson Fox, in an article on neuroses of the stomach—Reynolds System of Medicine, expresses the same idea in the following words, he says: "It is well known that excessive excitability of the nervous system stands in an almost inverse relationship both to the due co-ordination and to the efficiency of the functions under its control, and that conditions of weakness or mal-nutrition of the nervous centres are evidenced by perversions in the harmony of their action characterized by an apparent excess of activity in one direction, but attended by deficiency in another."

"Thus (to cite a familiar instance), a muscle in violent convulsion is unable to execute voluntary movement; a weak eye is conscious to a morbid degree of the impression of light, while its power of distinguishing objects is diminished; mental excitement, attended with rapid thought and vivid imagination, is generally deficient either in perspicacity of ideas or in the power of sustained attention or of logical precision."

The theory of Anstie in regard to neuralgia, may also be cited as another example of a like view.

That the immediate exciting cause of convulsions is anæmia of the brain, is now, I believe, admitted by the majority of pathologists. Dr. J. Hughlings Jackson, in speaking of infantile convulsions, says:—"We do not know what the intracranial changes are which cause fits, and we have no evidence that cerebral congestion occurs *before* the attack." "We have plenty of proof * * * * that convulsions will follow anæmia." Hammond, it is true, thinks that the paroxysms may be due to anæmia or to congestion; but may there not be contraction of the arterioles of the motor-centres with congestion of the other portions of the brain?

Gerhardt, a late german writer on diseases of children, says, in speaking of convulsions: "The physiological causation of both, the eclamptic and the epileptic convulsions, is undoubtedly the same. They originate in the spasm-centre of the pons from anæmia of the brain."* According to this author the anæmia is produced by contraction of the small arteries of

* Dr. C. Gerhardt, *Lehrbuch der Kinder Krankheiten*. 3te Auflage, 1874.

the brain, and this contraction itself may be caused by reflex-action from various kinds of irritations.

It may be objected to the theory of Traube that all eclamptic women are not anæmic or hydræmic. This I am not prepared to deny, though I believe, and am supported in this belief by the experiments of Becquerel and Rodier already cited, that an analysis of the blood of many pregnant women, presenting a marked plethoric appearance, would show a hydræmic condition to be present.

There seems to me to be a class of cases, especially in the country, where the actual amount of blood is increased, but where by the pressure of the pregnant uterus on the emulgent veins of the kidneys, the albumen of the blood is strained off, and a watery condition of the plasma is thus induced. The corpuscles may be present in an absolutely or a relatively normal amount. Such a condition, if it occur, would give the woman a markedly plethoric appearance, and would, also, through development of hypertrophy of the left ventricle, to which it would undoubtedly give rise, induce a full and bounding pulse.

Now it has occurred to me that the theory of Traube, if it does not already include them, could be extended to such cases, for we have in these cases several elements favorable to the production of convulsions. We have the increased blood-pressure, and we may suppose that the hydræmic condition of the blood induces mal-nutrition of the nervous system. When, then by the contractions of the uterus and the voluntary strainings accompanying them, or by other violent muscular exertion, the pressure in the vessels is still further increased, transudation of blood serum through the capillaries takes place, and if these capillaries be those of the pons, convulsions are produced in the same manner as in such cases in which the corpuscles of the blood are less than in health, or in which patients present an anæmic aspect.

A case which I believed to have been of this kind, occurred in my practice a couple of years ago. The lady, a primipara, was the very picture of plethora and robustness; she had a full bounding pulse, and, when I saw her, was yet semi-comatose from the paroxysm of convulsions which she had had shortly before I arrived. While I was examining her an other very violent paroxysm came on, accompanied with the most intense cyanosis I have ever seen. As soon as the spasms had somewhat abated, I bled her about a pint from the arm, and, shortly afterward, gave her four drops of croton oil in a tablespoonful of castor oil. I ordered her to be kept perfectly quiet in bed

and the sweating, which had commenced in the last attack, to be encouraged by additional bed-clothing. Having remained with the patient over an hour after the last paroxysm, and no symptoms of a return or of commencing labor showing themselves, I left her, directing her attendants to repeat the croton oil, if it did not operate in due time, and to administer the hydrate of chloral mixture, which had in the meantime, been procured, if the convulsions returned. She had no more convulsions until her delivery two or three weeks afterwards, and then only one very slight paroxysm.

In this case no dropsy, but albuminuria, as I afterwards ascertained, was present. The convulsions, I suppose, were brought on by muscular exertion.

I take the liberty once more to state the chief points of the Traube—Rosenstein theory and translate from Schroeder:

“The real pathological process in eclampsia is according to this theory in short the following: Whenever in excessive hydraemia a sudden increase in the tension of the aortic system takes place, hyperaemia of the brain results. In the watery condition of the blood, however, oedema of the brain is the necessary consequence. The transudation of water into the tissues exerts a mechanical pressure on the vessels and thus causes consecutive anaemia of the brain. The action of this anaemia shows itself in the epileptic attack.”

Having, perhaps, already fatigued you with the relation of these pathological speculations, I will try to be brief in detailing what I believe to be the proper treatment for this disease.

Blood letting, which is of doubtful utility only in the markedly anaemic cases, is proper in the large majority of cases whatever be the theory adopted. Aside from the fact that our treatment of disease should be guided more by experience than by theory and experience has established the utility of blood letting. The indications, presented by the several theories, call for venesection. If the convulsions be considered due to congestion or to plethora, bleeding will relieve this state by diminishing the amount of blood in the vessels; if they be considered due to an accumulation of urea or of carbonate of ammonia in the blood, part of this, at least, will be gotten rid of by bleeding; and if the theory of hydraemia be adopted, bleeding will be indicated to relieve the arterial tension and to favor or induce absorption of serum that has exuded into the tissue of the brain and is compressing the vessels. Of course, its effect is only transitory in the latter case; because—the conditions remaining the same—the vessels are soon filled again and the tension restored by absorption of

water from the tissues of the body, while the quality of the blood has become much deteriorated by the blood letting.

The Traube theory presents the following indications: 1st, To relieve or prevent a further increase of the arterial tension; and 2d, to rid the system of part of the water and thus increase the density of the blood.

The first indication is fulfilled by narcotics given to the extent of producing absolute narcosis, so as to prevent or make impossible any muscular contraction; the second by hydragogue cathartics and diaphoretics.

And, indeed, when we inquire into the mode of action of the various remedies which are regarded to-day as most successful in the treatment of this disease, we find that they fulfil either the one or the other of these indications, and we may safely regard this as further corroborative evidence of the correctness of the doctrine under consideration. Blood letting, chloroform, hydrate of chloral, and the vegetable narcotics, such as opium, belladonna, etc., which are all standard remedies for this complaint, are the very remedies one would naturally employ to fulfil the first indication. As for remedies called for by the second, the great stress laid by some authors on the employment of purgatives, may be alluded to. Thus Dr. Hastings, of Hartford, in a paper published in the Connecticut State Medical Society's Transactions says that "the arrest of the disease will depend largely upon the prompt administration of active purgatives," and recommends the compound powder of jalap and croton oil.* On the other hand, Dr. Carl Jaquet, states that at present two theories only can be considered as of much weight, viz: uræmia according to Frerichs and Litzmans; and œdema with consecutive anæmia, according to Traube and Rosenstein.

In accordance with the uræmic theory the indication would be, 1st, to prevent the formation of carbonate of ammonia; 2d, to neutralize that already formed; 3d, to eliminate it from the system.

The indications according to the second theory would be 1st to remove the œdema; 2d, to relieve the arterial tension.

All these indications are fulfilled by a strong diaphoresis; spriessnitz wet packing being the best mode of producing this. The author treated eight cases by this method with satisfactory results throughout.†

E. Martin the celebrated Berlin gynæcologist, gives his adherence to this mode of treatment, especially if, in conjunc-

* American Journal Medical Science. January, 1869, p. 211.

† Predizinische Nenigkeiten, 1873. No. 29.

tion therewith, chloral in enema, chloroform, and morphia hypodermically, are employed.

As the heroic method of using narcotics here recommended on the authority of Schroeder is sufficient to startle us especially when we recollect that but a few years ago we were told by the leading teachers of obstetrics to be extremely cautious in their use or not to use them at all, I will let Schroeder speak for himself. He says:

"If we accept the view that the attacks are induced by the arterial tension which results from the strong muscular action during the pains, the arterial pressure and the venous hyperæmia of the brain and consecutive œdema must, on the other hand, be still further increased by the attack itself, which is marked by intense clonic and tonic spasms of the entire muscular system, so that in each attack we have, in a manner, the cause of the next following. A rational therapy must therefore aim to paralyze the voluntary muscles, an object which we may attain by the administration of narcotics. It is especially to be emphasized, however, that they must be given in such doses, that not only the strainings during labor pains are suspended, but that the muscles are paralyzed to such a degree that they can not contract even during the paroxysm. In this way the convulsions can be stopped with certainty and for many hours, if the narcosis be continued that long; and, besides, we have the advantage that the conditions of the blood is not deteriorated." "Scheinessen has shown experimentally that chloroform diminishes the arterial pressure."

"Experience speaks very positively for this treatment. But we should never be satisfied with having given a certain quantity of narcotics. The treatment is efficacious only when the narcosis is complete, *i. e.*, when the patient lies perfectly insensible, so that no voluntary muscle contracts. A narcosis of this kind can be obtained by the use of chloroform, but as it is necessary to keep up the narcosis for some time, morphia had better be employed. Where it is desirable to produce narcosis in the shortest possible time, we may commence with chloroform and follow it with hypodermic injections of morphia. It is immaterial what quantity of the narcotic is used, since the narcosis must be absolute, and for attaining this end different doses are required for different individuals.

It seems from this transcription that Schroeder relies mainly on narcotics, and he is not alone in this, but, undoubtedly, the other remedies ought not to be neglected. If we commence with bleeding, where admissible, follow this by cathartics and diaphoretics, and if the convulsions still continue, administer,

in addition, chloroform, hydrate of chloral, or hypodermic injections of morphia or of atropia, by this treatment, I think, we will give our patient the best possible chance of recovering from this dreaded malady.

Art. 2.—Ununited Fractures.

Read before the Alumni Association of Miami Medical College, June 29th,
1876. By WM. H. WENNING, M.D., Cincinnati.

Fractures constitute the most common forms of all surgical injuries that fall within the province of every practitioner of the medical profession. The various and numerous splints and mechanical appliances that have been devised from time immemorial to the present day, all tend to the same purpose, that of a proper co-adaption of the severed parts of bone with one another at the seat of fracture, with a view to their ultimate union. This end (thanks to the reparative process of nature) is in the majority of cases attained, even if, as is sometimes due to displacements of the fractured parts, deformity remains. With all due precautions, however, it occasionally happens that only partial-union or entire non-union results, to the great chagrin and disappointment of the surgeon, who, after weeks of most careful attention to proper dressing and correct position of the parts, finds the same, or nearly the same, state of affairs as at the time of receipt of the injury.

It is my purpose, this evening, to call the attention of the society to some of the causes of non-union, the different modes of treatment, and a report of a few cases, some of which have come within my own personal observation.

The bones most liable to fracture are, as is well known, the long bones, consequently the instances of ununited fractures most commonly fall within this category.

It is not necessary here to dwell upon the physiological or pathological conditions necessary for the production of that bone-uniting material commonly called callus, except simply to mention that it is a plastic material thrown out from the bone, the periosteum and adjoining connective tissue, which gradually hardens (whence its name), ossifies, and finally becomes part of the bone itself. When this process progresses in a regular and uninterrupted manner, we have firm union of

the fractured bones established in a comparatively short time; if, on the other hand, any interference or interruption in the formation of this substance occurs, we have imperfect union or non-union resulting.

Erichsen, in his admirable manual on surgery, attributes failure of bone union to one of three conditions in the formation of callus: 1. No uniting material of a stronger kind than fibro-cellular tissue has been formed; or 2. The plastic material that has been thrown out has only developed into fibrous tissue; or 3. True bony union has taken place, but owing to some peculiar state of the patient's health, the callus has become absorbed and the fracture loosened.

The first and last are instances of ununited fracture; that is, no union at all has taken place. The second an instance of so-called pseudarthrosis or false joint; that is, only partial union by the formation of fibrous bands or ligaments not susceptible of ossification has taken place.

The causes of this deficiency or defectiveness of callus are either constitutional or local. We have already alluded to constitutional causes in speaking of the absorption of callus. Prominent among these are syphilis, scrofula, scurvy, phthisis, cancerous cachexia, and certain diseases of the bones, *os fragilitas* or *mollities ossium*, etc. In the latter the same causes that predispose to fractures, also prevent union when they have occurred.

Pregnancy and lactation in the female are, by some authors, said to be causes of non-union. This, however, is very doubtful, as certainly most women that have received fractures during these periods, owe failure of union to the great extent of local injury received, or to some cachectic state, which to them may be constitutional. Local causes, are diseased conditions of bone at the time of injury, such as comminution or wide separation of the fragments, injury of soft parts, interposition of muscle between the fractured ends, the presence of a foreign body, etc.

The treatment varies with the causes of lesion. In all cases due to constitutional affections, recourse must first be had to constitutional treatment, as proper attention to hygienic condition of the patient, the administration of tonics, restoratives, alterants, etc.

The local conditions oftener demand operative measures, as removal of spicula of bone, and other debris in comminution, special treatment of the lacerated soft parts, in short, the removal of everything that may interfere with the necessary healing process of nature.

But when all of these measures fail, what then is left to us? Here we have come to the point where the surgeon must exercise his skill and discretion, whether or not, and in what manner to operate.

The most simple operative treatment (if it may be called operative) consists in friction; that is, rubbing the ends of the fractured bone on one another to produce irritation, and, consequently, inflammation, causing a deposit of callus. It is evident that this method can be of service only in recent injuries, consequently, in those where no fibrous bands or coverings connect the fragments, or prevent the continuity of bone. But from the fact that union is affected much more rapidly in simple than in compound fractures, due to the exclusion of the atmosphere, when this means suffices to bring about adhesive inflammation, union takes place with little less delay than where fractures united from the beginning.

But if this mode of treatment be of no avail as in severe compound fractures, and in cases of pseudarthrosis, in most instances recourse must be had to exsection of the fragmentary ends, and keeping them in apposition, with or without the introduction of a suture through the bones. This operation, of course, necessitates a cutting down upon the bone at the seat of injury, converting a simple into a compound fracture (if originally it was of the former kind), which causes a much greater delay than in the first mode of treatment, if even union is at all attained. Nevertheless, it is their only means of radical cure where a false joint has been formed, or the ends of bone have been eburnated to such an extent that inflammatory adhesion is out of the question without the aid of an operation, as for instance in fractures of long standing.

A third, commonly called Dieffenbach's method (from the name of the originator or inventor), consists in the introduction of ivory pegs into holes previously drilled in the shaft of bone at certain distances from each other. Their object is to produce an artificial irritation with consecutive inflammation. This method is especially of service where no great loss of bone substance is desired, and where no comminution but a clear surface is present, as in regular oblique fractures. In cases of eburnation or pseudarthrosis, it is, of course, inapplicable.

The following few cases will serve to show the different modes of operation, with final result of each:

Dr. Berenger Feraud, a French surgeon, has published in the *Bulletin Therapeutique*, a summary of cases taken from the reports chiefly of French, English and American surgeons, recorded from the year 1838 to 1866.

The list comprises, in all, twenty-five cases; twenty so-called false joints, and five instances of recent fractures. Exsection was performed in nineteen instances, in all of which a suture through the ends of bone were drawn for connection; of these, three were united with the ordinary silk suture, all the rest with metallic wire. The latter seems generally to have been preferred. Result: Success, twelve; failure, two; result not specified, four; and one death suddenly after operation with no attributable cause.

Dieffenbach's method, of introducing ivory pegs, was performed in six cases. Result: Success, four (thrice by the inventor); failure, one; and result not specified, one. As regards the seat of fracture, ten were in the humerus, five femur, four tibia, two lower jaw, one radius, and three in which the seat of fracture was not mentioned.

The author, by no means, considers the foregoing summary complete, for undoubtedly many cases of failure or but partial success have not been reported. The frequency of success, however, ought to urge us to resort to some *probable* means of cure, rather than leave the patient to his fate, and doomed for a long crippled life.

Prof. Syme, in his treatise entitled "Observation in Surgery," reports five cases of ununited fractures, in which he accomplished union by sawing off portions of the end of bone, and fixing the limb in a firm splint.

Prof. Bigelow, of Boston, cites eleven cases, eight of the humerus, two of the radius, and one of the femur, in all of which he attained bony union by exsection. In one case only softening of bone ensued, in all the rest success was complete.

Dr. Kempster (*American Journal of Medical Sciences*, Jan., 1866) reports an exsection of four and one-half inches of the right tibia, with ultimate recovery. The patient referred to had been wounded in the late civil war by a gun-shot, which shattered the tibia to such an extent that amputation of the limb had been decided upon, but, upon the patient's persistent refusal to submit to such an operation, exsection was finally performed with little hope of success. In less than two months after the operation perfect union had taken place, and in five months the patient was able to walk short distances. In two other cases exsection was performed by the same gentleman, in one of which less than two, and in the other as much as three inches of bone were removed. Success in both cases, with serviceable limbs. All these cases are remarkable for the amount of bone removed, and yet terminating successfully.

Dr. Kempster (Id., July, 1866) reports an exsection of both arms for ununited fracture and false joint of fifteen months duration, with final success.

At the time of operation shortening of one inch was found in the fractured arm, and one inch more was removed by exsection. Eight weeks after the operation the dressing was removed, and only ligamentous union found. One month being allowed for recovery from confinement, an operation was made a second time, the ligaments were divided, one-fourth of an inch additional of bone removed, and the ends of fracture firmly united by sutures of silver wire. Six months after the first operation, and twenty-one months after the time of injury, osseous union of both ulna and radius, with one and one-half inches shortening, had formed.

Mr. Birkett, of Guy's Hospital, reports, in the *London Lancet*, in May, 1867, the result of treatment in two cases by the introduction of ivory pegs through the fragments. In the first case, a young man of twenty-five years of age, absence of union was found after a duration of five months by ordinary local and constitutional treatment. In two and a half months after the operation bony union took place.

In the other case, a female, aged 28, a compound fracture of the humerus, complicated with other severe injuries, the result was not so rapid. The operation was performed four months after the time of accident, and complete bony union was found only after the lapse of more than two years after the operation.

In reporting the following two cases, which have come under my experience, I must confess that no notes were taken at the time of operation, and, consequently, reliance had to be placed entirely upon memory for the statement of particulars.

The operation consisted, in each instance, in exsection, which was performed by Dr. G. Werner, a German surgeon of this city, whom I had the pleasure to assist in both instances. The subjects both received a compound fracture, one of both bones of the fore arm, and the other of the leg, occurring nearly at the same time. In the first no constitutional affection could be ascertained, in the second, some time after the operation, the previous contraction of syphilis, some years ago, was admitted.

Case I. A. K., aged 30; gardiner; German. This patient first came to our notice in February, 1875. Upon examination a compound fracture of both ulna and radius, at the upper third of these bones near the elbow joint, was detected, which the patient had sustained about three months previous.

The limb had been placed (rather carelessly) in a splint by the surgeon first in attendance, but no union at the time of our first visit had been formed. Besides the fracture, an old irreducible dislocation of the elbow, was also found present, which complicated the fracture, and made the deformity still more apparent. All constitutional and local treatment proved of no avail, and as the arm was now entirely useless, the patient requested and was willing to submit to any operation that would give him a chance of regaining a useful arm. Accordingly, on the first of March, 1875, the patient, in the presence of several medical gentlemen, was placed under chloroform, the Esmarch bandage applied, and an incision about three inches in length made upon the outer side of the fore arm down upon the seat of fracture. The bones, ulna and radius, were slightly raised, the chain saw passed under them, after the false joint had been divided, and portions of both bones, amounting to about three-fourths of an inch excised. After carefully removing all spiculæ of bone, and washing out the wound, the cut surfaces were placed in apposition, and the opening closed by sutures. No bone suture was employed, but the limb was firmly fixed in an immovable splint. This was done by first surrounding the arm with a layer of sheet cotton, then applying a soft flannel bandage, and finally encasing the whole fore arm in a plaster of Paris bandage. After this had sufficiently hardened, a fenestra or opening was cut into it just opposite the seat of fracture, through the bandages, until the incision was laid bare, which was treated with carbolic acid dressings. Healing progressed rapidly, and by first intention. No untoward symptoms occurred, except after a little while a swelling appeared in the arm and hand above and below the splint; this was relieved by dividing the splint on its upper side, which caused the swelling to subside, and still give sufficient firmness.

In about three months July 24th, the splint was entirely removed, union found complete and the patient discharged. One month afterwards, however, he returned with a small opening near the seat of fracture, discharging a small amount of serum. A small piece of detached bone was extracted and the patient two weeks thereafter discharged with the opening thoroughly closed. Since then he has had a useful arm, considering the presence of the dislocation.

Case II. T. B., age 28; German laborer; was thrown from a car while in motion in January, 1875. He sustained a compound oblique fracture of both tibia and fibula at the junction of lower and middle third of these bones. He was

treated by a surgeon of this city until April when he came to our notice. Upon examination the lower fragment was found to override the upper and penetrating through the skin. Union was but partial and deformity great, on account of the tilting upwards of the bones at the angle of fracture. On the 5th of April the patient, with a view to operation, was given chloroform, which failed to produce any narcotic effect. The operation was, nevertheless, begun, the patient following all the details with great interest, but declaring he felt no pain. The Esmarch bandage was applied and during the entire operation a continuous spray of carbolic acid by means of an atomizer, according to Lister's method was made to play upon the parts of incision. The numbing effect of the elastic bandage with the local anæsthetic action of the spray may have been the cause of entire loss of sensibility. The imperfect adhesions were broken, the tibia raised up from the adjacent soft parts and portions sawed off from both ends, the loss of bone substance in all amounting to about one and a half inches. The fibula was left undisturbed, and it was expected to become righted with the operation of the tibia. The limb was placed in a suspensory splint for a short time, which, however, was removed the next day on account of the extreme restlessness of the patient, and a plaster of Paris dressing substituted as in Case I. The wound failing to unite as in the first case, was left open and daily irrigated with a solution of carbolic acid. For a time multiple abscesses appeared in the vicinity of the wound, which however were opened, the contents discharged and gradually healed. Granulations sprang up rapidly and in about thirty days bony union began to form.

On July 13th three months after the operation the splint was entirely removed, the whole wound with the exception of a small opening, having closed. At this period, either by accident or design he fell into the hands of a notorious quack and the regular surgeon was discharged. All traces of the patient were lost from this time, until a few weeks ago, when he was said to have been seen walking about with scarcely any visible deformity.

In conclusion a few words concerning the plaster of paris or gypsum splint. It is evident that absolute rest is the great desideratum in every case of fracture, but especially so when it is necessary to keep a member of the body a long time in a fixed, immovable position, such as fractures with delayed union. This rest can only be acquired by the use of such splints as just described. The gypsum splint possesses this great advantage of keeping the fractured parts perfectly fixed

in position and yet allowing motion to other parts of the body, which is certainly more healthful to the patient than constant confinement. Another great advantage lies in the fact of allowing perfect control of the seat of injury as in compound or comminuted fractures, or in cases of exsection without danger of displacement of the fractured portions.

Art. 3—Simultaneous Birth of Twins.

Reported by J. W. STROTHER, M. D., Powellsville, Ohio.

The following letter was handed us by Prof. W. H. Taylor, of Miami Medical College:

MAY 18th, 1876.

PROF. W. H. TAYLOR, Miami Medical Collège :

MY DEAR DOCTOR—I have just visited a lady, whom I delivered of two female children—one dead, the other living. The case was as follows:

I was called last night at 11 A. M. to see Lizzie K——; single; age, 22; found her in labor, and on making an examination, per vagina, I distinctly felt two foetal heads lying, as well as I could make out, at brim of upper strait, with their faces together. I watched the case with more than usual anxiety, until its termination, which was 5 o'clock this morning; she getting through without any assistance on my part. And what I regard as remarkable is this—both children were born at the same time exactly, (the same pain expelled both from the maternal organs), and both being delivered head first. There was one very large placenta only, and of course only one set of membrane. The exact relative position which they occupied while passing through the pelvis and soft parts I can't say, but my opinion is that the head of one corresponded to the neck of the other. But what I am sure of is this—that both were expelled by the same pain, and heads presenting, and there being one large placenta, both cords being inserted near its edge, very close together. The mother and living child are doing well. Bedford don't give any such cases, and I don't remember that you did.

The children were full time, not only according to her statement, but judging from development, appearances, etc. The dead one was putrescent, and weighed seven pounds; the

living one was quite lively, and weighed five pounds. The head of the dead child was remarkably flattened and elongated, but, judging from its condition, etc., I am of the opinion that it had been dead some three or four days or a week. The head of the small one was not flattened, but was perfectly natural, etc.

The perineum was ruptured, but not seriously. The mother and child are both doing well.

Yours truly,

J. W. STROTHER, M. D.

POWELLSVILLE, SCIOTO Co., O.

Art. 4.—Advice to Young Physicians.

By TOBIAS TABBS, M. D., Galensville, O.

The first thing to do, after opening an office, is to create a good impression on the minds of the community among whom you have established yourself. There are numerous ways of accomplishing this highly desirable end. One of the most popular and paying professional leads ever struck has been the "moral Bonanza." As it is an easy matter to work up this mine of wealth, we give the following directions, which if strictly adhered to, will bring lucre and prosperity to any man who is willing to try it on. Find out, if possible, what church in town is most willing to welcome a pious young man within its sacred precincts. As all churches, no matter what their creed and forms may be, lead to the same celestial goal, you need have no conscientious scruples which one you shall join. If you happen to have been raised a Baptist, and that church does not seem to offer a good opening, turn Methodist, Presbyterian, Episcopalian, or Catholic. If all the Trinitarian Churches happen to be supplied with a surplus of medical talent, become a Unitarian; you will evince a high liberal tendency when you join this church, and will come to be regarded as an advanced thinker (whether you are or not). In case of absolute necessity, one might join the Synagogue; to do this, however, you will have to be circumcised, this operation, though painful, will, in time, bear its pecuniary reward; besides, its an excellant church to join if you suffer from phymosis.

Whatever church you become a member of, be sure and take a deep and active interest in its welfare; advocate its doctrines, and pin your faith to it. By doing this, in time, you will come to be a sincere believer, and not only the members of your own congregation, but the world at large, will respect and honor you as a christian physician.

If you are a christian physician with musical taste, and sound, healthy, vocal chords it would be a good thing to join the choir. If so be careful that your voice shall be heard above all the others, during divine service. People will go home and say, "How sweetly Doctor Basso sings;" they will discuss your musical talent and, as a natural sequence, your medical talent; which, will be altogether to your own advantage.

Its music that charms the savage ear of the populace: Orpheus charmed the beasts of the field by it, while Arion charmed the fish of the sea in the same manner. Many a young doctor has sung himself into a practice; some have fiddled, some have flute played, and some again have even danced themselves into a paying business; but we are digressing from the subject, of the "Moral Bonanza."

If you are happily endowed with the gift of eloquence, be sure and take an active part in all prayer meetings. The more emotional the form of religion, the better for the doctor. We know a christian physician, who can throw half the women at camp meeting into hysterics. He always attends camp meeting from a high sense of professional duty. During such periods, he prescribes grace and valerian in about equal quantities, only charging for the latter; which is generous to say the least.

Its a good thing for a young christian physician to marry. To do this let him look around in his own church first. If he finds some influential young female in the congregation, who is willing to take him for better (or worse), he had better sail in. If the young woman happens to have a few thousand dollars in her own name, it would be no objection. All rising young physicians in Philadelphia, marry young christian women, who can repeat the first six words of the "Lords Prayer" and omit the "give us this day our daily bread" part. A young Philadelphia physician was never known to go back on a girl, because she happened to have a hundred thousand in her own name. Under all circumstances, avoid entering into a matrimonial alliance with a clergyman's daughter. Clergyman are apt to move from time to time, and their influence is thus, made somewhat transitory. You may marry

a Bishops daughter, however ; or, a Cardinals daughter, if the latter happens to have one he owns up to.

Its a good thing when you first join church to have some friend dash madly up the aisle on a sabbath morning, and whisper in your ear, pick up your hat at once, and leave the sanctuary in a hurry. It has a good effect on the congregation. People wonder who is sick ; and, taking their minds off the sermon, concentrate their thoughts on the christian physician ; all the time thinking to themselves " what a large practice Dr. Syringe has." Unfortunately Sunday comes but once a week, so you will be unable to have more than fifty-two " church calls " per annum.

Its a good plan to attend all the weddings and christenings. In the former case, you can make the bride believe that you are the man who ought to be called in two hundred and eighty days, after date for that little parcel of humanity, marked C. O. D. When you go to the christenings, people will at once recognize the fact, that you are the kind friend, who officiated at " baby's " nativity. Avoid funerals of patients who have died under your own care, it creates ill-natured remarks from the unthinking. Go to all the funerals of patients who have died under the care of rival physicians. Shake your head gloomily, and remark, " It might have been different, if I had been called in." People will believe all you say, and will repeat your remark, adding many elaborations thereto ; all to the detriment of your business rival. If the matter is called up in the County Medical Society, and you are charged with violating any section of the Code of Ethics, deny the allegation and defy the allegator ; this will cause a breeze among the other doctors, and, " who shall decide when doctors disagree "—always render gratuitous service to a clergyman, no matter how handsome a salary he may receive. When he recovers from his dangerous illness, he will be under obligations to you ; and, when he once more resumes his parochial visits, he will on all occasions remark, " I recovered, thanks be to God, and Dr. Clyster !" In this way your name becomes associated with that of the Diety, and you will be supposed to be on terms of intimacy with your Creator. " A man is always known by the company he keeps."

There are many other reasons for working the " Moral Bonanza," but time and space forbids their further enumeration. Turn we now to the other means of building up a business. It might be well to try the " Scientific Dodge."

To work the " Scientific Dodge " successfully requires tact, nerve, and ability ; it also requires a residence in a city, or

large town. If you want to try this lead, the first thing to do is to join some local medical society. If there happens to be an academy of medicine in the place join the latter. There is much more dignity in an academy of medicine than there is in an ordinary society—an academy is a nidus about which all the medical genius and talent of a place aggregates; it contains all the original minds of the medical community; besides, it usually has an organ which publishes the society transactions in full; a society without an organ is like a man without brains, not much account. Its a good thing to read papers before a society and have them “cussed” and discussed. The organ of the society publishes them free of charge, and they fall into the hands of a curious public (*by mail*). You will reap the benefit of such papers. Its a good thing to write papers having startling titles, as for instance The Toxic Properties of Lima Beans, why they produce Flatulence; or, The Balloon Treatment of Asthma, how it uncontracts the Bronchi; or, The Antagonism existing between Altitude and Depth, etc., etc. Such papers create a sensation; they betoken originality on the part of the author, and awaken the animosity of your less original medical brethren, who have not the eccentricity of genius to the same marked degree as yourself. If you are a tolerably good German, French, or Italian scholar, you can save much time and trouble by merely translating articles from foreign Journals and reading them as your own original productions; be careful not to publish such papers, however, as it may lead you into trouble; for there are medical wolves in sheeps clothing always ready to pounce down on the innocent; men who are mean enough and miserable enough to strip you of your borrowed plumage; avoid such critics as you would a case of spontaneous hydrophobia.

Its always a good thing to be a college professor. If there is no college in your town organize one immediately. There is a surplus of talent lying about loose, only awaiting the germinating influence of a medical college, in order to bring out a big crop of young physicians. By going into a college you may at once become a full fledged Professor, without ever having even earned the title. It sounds well to be dubbed “Professor Cackle,” and adds to a man’s social standing a hundred fold.

Viewed from a pecuniary stand-point, it is also a good investment. You can collect fees from the students for your valuable lectures, in addition you can also collect a good sized graduating fee. Do not forget that the more students you

graduate the larger will be your cash receipts; this is an important item in the management of all medical colleges.

When you become a college professor, you must impress upon the minds of the students the important fact, that you are a master of your specialty. When the students graduate they will scatter to their homes in the country, strongly impressed with this idea, they will often call you in consultation, and this is a nice thing for the Professor, as it enables him to make a big fee (by going away from home). When you return to the city, you may casually remark to some friend; "I was called up to ———, to visit a patient, in consultation with Dr. Rooralrooster." Your friend will repeat your remark to his friends, and people will begin to talk of your wide spread reputation. They will say, "Prof. Cackle, went seventy-five miles out of town, to consult with a country doctor, who did not understand his case." In this way your professional standard is elevated and the country doctor's is correspondingly depressed. Even the rustic mind becomes inspired with the idea that "Dr. Rooralrooster," is not a man of much ability, "why he had to send for a city doctor," is the remark which travels through the district, never mention this to any hard working, honest, plodding, country practitioner, as it might set him to thinking (for himself).

If ever you become a college professor strive to be the Dean of the Faculty. There is something awe inspiring about the Dean of a college. He seems to be the embodiment of all the brains of the Faculty; indeed, as a rule, he is usually what he seems to be. Its a good thing to be a Dean; you have your name printed on all the college circulars; you see it in large "caps" at the end of the newspaper college advertisements. When you are a Dean, it will become your solemn duty to defend your own college on all occasions. Cultivate a highly sensitive disposition, and imagine that every little squib which appears in a medical journal is a personal reflection on yourself, and a slur on the particular school you may happen to represent. Put on the slipper because it may happen to seem to fit, if it pinches, squeal like a good fellow (through the columns of the daily newspaper), proclaiming yourself a medical martyr, whom envious physicians seek to injure. Its a good thing to advertise yourself and college in this manner, it costs nothing to become a champion card writer, besides it pays. We have known a medical editor, who was innocently shooting at empty space, to bang off his editorial gun, and be startled by the commotion it produced among a sweet party of ducks at which he had not even aimed, one would have supposed

them to have been hit, owing to the noise they made; but we digress. Its a good thing then to be a Dean. We always doff our hats before such august personages, and whisper in an awed undertone, "God bless your Highness!"

We might say more about the "Scientific Dodge," but we refrain, only adding that, if resorted to, it is the best means of keeping up ones interest in medical study and research; it makes you read and write and cultivate the literature of the profession. "Scientific dodgers" will generally be found to be up with the times. Without doubt this class of medical men represent, in the main, the bone, and sinew, and strength, of the profession; to them the advancement of medicine is due, for, the "Scientific Dodger" begets medical science in the same way that an oyster begets a pearl, *i. e.*, by diseased and unhealthy action. If we do not always admire the oyster's hideous external shell, we always at least admire the "true inwardness" of the beautiful pearl.

As we before stated, it requires pluck, nerve, industry and ability to work up the "Scientific Dodge," if you have not these qualifications it is best to avoid trying this method, although it pans out big in the long run. You might try the "Social Slide." To work up this lead it is necessary to have a good address, ingratiating manners, and handsome person; you must also be *au fait* in society matters; if you can trace your ancestry back to the time of William the Conqueror, so much the better; other people may not be able to trace it back so far, but they will take it for granted, to save time and trouble. Assume an elegance in dress and deportment. Cultivate art, and be able to tell, at a glance, a Rembrandt from a card photograph. Cultivate instrumental music. The violin, or the flute can be played upon as easily as the people. Be able to distinguish the 9th Symphony from Hail Columbia. Take part in all public concerts, and see that your name is spelled correctly on the programmes. If you are a fine amateur performer you can practice duetts with the young ladies in your neighborhood. If the female fingers happen to be dislocated by banging on the piano, you can reduce the luxation by palmar compression. Coax your young lady friends to sing for you until they are hoarse, then prescribe a gargle for the injured larynx, and send in the bill to their papa; there is method in such madness.

The "Social Slide" will give you the *entree* into a good many houses. If you hear that some person in the neighborhood is sick, pay that person a friendly visit. Tell the patient how much worse he looks. Pick up the bottle containing the

patients medicine, smell the cork, look at the vial with an assumed air of wonder, and mutter "Strange! Strange!" then turn and leave the room. This will mystify and alarm the friends of the patient, who will at once follow you and ask your opinion. Don't answer any of their queries, it would be a violation of the code of ethics. Throw yourself on your dignity and say, "you must ask your attending physician, who, perhaps, knows what ails the patient." The friends will persist however; "Doctor what do you think is the matter with Mr. Blank?" You will reply with the query, "what did your family physician say about the case?" They will give "Dr. Oldfogys" diagnosis, then you must laugh in an amused sort of way and remark, "what! did *he* say that." Leave the house at once, go straight to your office, and wait a little while for the *expected call*.

Its a good thing to join the Masons, Odd Fellows, Red Men, Knights of Pythias, and Ancient Order of United Workmen. To be a medical brother in a number of lodges pays well and gives you influence. On parade days you can march with the rest of the boys, wearing a cocked hat, and carrying a sword. Keep away from secret society funeral processions however. The saddest sight in life is a medical Odd Fellow trudging slowly after a dirge playing brass band; especially after having attended the dead brother. Let others bury your patients to to slow music. Cultivate a specialty. "Skin diseases" is a good thing for a small town. We know of a youth in Boston who rushed into a big practice by this specialty. This talented young man collected a lot of favus crusts from hospital patients; these crusts he reduced to a fine powder, then he went to church, theatre and opera for a number of nights, and always taking a gallery seat, he gently wafted the favus spores on the heads of the people below. What was the result? In a short time our young skin disease specialist had a big office practice. People in the United States often wonder why almost all Boston men have bald heads; they think it is caused by the climate, and intellectual development of New England; but it is all caused by well distributed favus crusts. You can work this specialty in any small town.

The "Society Slide" is, *par excellence*, the way to drum up business; it is the ordinary policy of commercial trade applied to medicine. You hunt up patients, and don't wait for patients to hunt you up. In this respect the "Society Slide" is the antipode of other methods. We might enumerate numerous other ways of securing a practice, without violating the code of ethics, but enough has been already said. There are two

things to completely eschew in medicine, *i. e.* politics and medical Journalism. Keep out of both of these, as you make no friends, and plenty of foes. Above all collect your bills (when you can), and pay your debts (when you must), this will enable you to keep up style, and a horse or two. You have a fortune now in a nut shell.

[We hope the regents of Benton Medical College, will elect Dr. Tabbs a member of their faculty, as he undoubtedly possesses the scientific ability that, is necessary to keep that institution in constant easy running condition. Ed.]

Translations.

Diseases of the Skin.

Therapeutic notes gathered at the Clinic for Cutaneous Diseases, of Prof. Hardy, at the Hospital, St. Louis. By Dr. E. ORY.

b. Animal Parasites.

a. The Itch. The parasite that determines the eruptions, various in aspect, that are observed in the "Itch" is the *Acarus Scabiei*. The acarus and the ridge (red line) made by it are the two fundamental symptoms of the malady. By destroying the acarus we suppress the exciting cause, which besides the itching brings on diverse eruptions: *Prurigo* (on the forearm, the abdomen and the inner surface of the thighs.) *Isolated Vesicles*, slightly acuminate (on the lateral surfaces of the fingers, interdigital commissures, and the wrists.) *Ecthyma* (on the hands, the feet, and the buttocks.) *Papules*. *Eczema*, *Impetigo*.

The ridge (red line) once discovered, the diagnosis is established, and if the intensity of the complications be sufficiently moderate, the patient can be quickly cured by destroying the parasite.

It is well known that M. Hardy has reduced the cure *to less than two hours*. This treatment it is true, may irritate the skin and sometimes be the cause of diathetical manifestations: but the parasite itself, may bring on like eruptions, or cause like manifestations of a diathesis in subjects so predisposed.

This is the treatment for *Simple Itch** as practised at the hospital St. Louis.

At first the whole body of the patient is well rubbed with black soap** thinned with water; these frictions must be made in every part of the body, for the *acarus* is found everywhere (except on the face.) This first operation is continued for about twenty minutes; the skin is washed and cleansed from the scurf, and dusts, and scabs; the epidermis is now softened and the ridge made to open, at the bottom of which the *acarus* and its eggs are found. After this the patient is placed in a warm bath and allowed to remain therein for a period of forty minutes, at the end of which time the skin will be, in a sort, macerated; the epidermis does not resist any more and the ridge of the *acarus* has been transformed into a trench. It is now that the patient is thoroughly and well rubbed with an ointment made as follows:

R _x . Axung.	5x.
Flor. Sulphur,	5xiij.
Potass. Subcarb,	5viss.
M.	

Care must be had that the ointment is well made, and free from any small grains that would be irritant and cause painful excoriations. For this purpose the salt should not be mixed with the sulphur until it has been dissolved. This sulfuro alkaline ointment of M. Hardy is very much less irritant than the pomade of Helmerich and is equally as destructive to the parasite. The patient must, however, be well rubbed with this sulfuro alkaline ointment, so as to bring it in contact with the parasite. As for the duration of the contact, that depends upon how long the patient can remain in the hospital; after this an emollient bath.

If from any cause the ointment can not be kept on for a whole night, it will be prudent, to prevent a relapse, to repeat the inunctions with the ointment for two consecutive days.

The emollient baths that conclude the treatment should be repeated for several days, for often a rather severe itching persists; a nervous phenomenon which the emolient baths will soon abate, whilst a renewal of the frictions would increase it and augment the production of accessory eruptions.

This is the treatment for *Simple Itch*.

* La Gale. *Psora Simplex*.

**Sapo Niger. Black Soap, a composition of train oil and an alkali.—
(*Dunglins. Med. Dict.*)

Very often, however, the state of the skin will not permit of an immediate use of inunctions. Prof. Hardy thinks that not alone would it be causing the patient useless suffering but that it would be really hurtful to use the frictions when the secondary eruptions are very intense, for besides the pain caused they are really without effect, if not made on every part of the body; ovules and acari escape contact and in a few days we have a return of the malady. It is therefore better to delay a little, calm the phenomena of irritation by emollient applications, cataplasms of starch flour, washing with flax water, by envelopment with vulcanised rubber cloth, large emollient baths, and lastly by proper hygienic care. After several days of this preparatory treatment we can, with hope of success, resort to the parasiticide treatment.

We have already spoken of the persistence of itching after the cure of the disease. Some patients, not believing themselves cured, will clamor for a renewal of the inunctions, which, if done, will have no other result than to increase the irritation of the skin; we must wait and not resort to fresh inunctions unless we discover between the fingers, on the hand, the back or other parts of the body, the red ridge and vesicles, the unfailing symptoms of a return of the disease. Sometimes under the influence of the acarus, an eruption appears, like eczema of the breasts, that will persist for a number of years after the complete disappearance of the itch. These eruptions must be treated as diathetical manifestations, without regard to the occasional cause of their development.

*b. Phthiriasis or Pedicular Disease.** Three species of lice can live on the surface of the human body; the louse of the head, *pediculus capitis*, the louse of the body, *pediculus corporis*, and the crab louse, (*pediculus pubis*.) Age, bad hygienic conditions, a bad general state of health, alcoholism, are conditions that facilitate the rapid multiplication of these parasites and the complications that their presence brings on.

Among other accidents, the lice determine the appearance of a prurigo with large papules. If the patient be affected by the louse of the head, *pediculus capitis* (above all in children) the irritation of the hairy scalp, causes pustules and impetiginous crusts. *Impetigo granulata*, pustules of *Ecthyma*, furuncles develop on the surface of the hairy scalp; crusts, formed by the pus discharged from these purulent collections cover the lice. The hair agglutinated by the secretions cover and support the nits or eggs.

* *Morbus pediculosus*—louse disease.

The first thing, in the treatment, is that care be taken to keep the hair very short; then if the inflammatory phenomena be intense, if thick crusts cover the hairy scalp cataplasms should be applied, of boiled starch, or allow the patient to wear a well fitting cap of vulcanised rubber cloth; then resort to the parasitocides treatment; either inunctions with mercurial ointment or dusting the hair with powder of stavesacre (staphisagria) or by washings with a solution of Hydrarg. sublimatum 1 to 500. Then, as the feebleness of the individual seems to facilitate the reproduction of the lice the vital forces of the patient must be recuperated by a general constitutional treatment: cod liver oil, syrup of horseradish, antiscorbutic syrup* wine of gentian, and above all by strict attention to the proper hygiene. The cleanliness must be very great.

The *body louse*, (pediculus corporis), more frequent among the aged, the convalescent, is generally very easily destroyed by

Fumigations with cinnabar, 4 to 8 grammes on a heated brick.

Fumigations with sulphur, on heated plates.

Lotions or baths of sulphur or sublimate.

Powder of stavesacre.

The same hygienic care must also be insisted on here. The changing of the linen is a sort of depilation.

The *crab louse* (pediculus pubis) is effectually combated by

Mercurial Ointment.

Lotions of Sublimate.

Very frequently, after the destruction of the parasite a severe itching persist, which it is difficult to cure. The emollients are here insufficient; we will speak of that further on.

A frequent cause of relapse, in patients who have been treated for parasitic affections, is, that after having been thoroughly cleansed, not alone the body but even their clothes, they return again to the bad surroundings where the vermin abounds. It is therefore best to advise them to thoroughly dust their clothes and vestments with the powder of stavesacre, and if possible to boil them. Without this precaution the eggs, as soon as the conditions will be favorable to their further development will cause the lice to reappear, in subjects predisposed by poverty or disease.

* French preparations.

To sum up, in the treatment of parasitic diseases the following rules must be observed. 1st Calm the phenomena of irritation. 2d Kill the parasite. 3d Tone up the general system. 4th Combat any complications that may arise.

(TO BE CONTINUED.)

A Purgative.

We are sometimes embarrassed in the choice of a purgative at once efficacious and pleasant. Dr. Mandl, in his formulary on the hygiene of the voice, gives the following formula, which we believe will answer the required conditions:

R \acute{y} . Senna. 5ij to 5ijss.
Manna. 5xi.

Infuse for half an hour in three glassfuls of boiling water; filter, add the juice of an orange, and drink warm in three times at intervals of a quarter of an hour; in the intervals and till a complete effect, a light decoction of barley in abundance.
(*Achives Belg. de Th. and Progr. Medic.*)

A Pleasant Gargle.

R \acute{y} . Tannic Acid. 5ss.
Mel. Rosatum. 5xi.
Infus. of Roses of Provence. 5xx.
M. ft. Solut.

To be employed in case of chronic angina.—(*Progres Medicale.*)

The Treatment of Urethritis with Alum.

Doctor Vos has always employed with success, in the treatment of urethritis acute or chronic, injections of calcined alum. This is the procedure.

The doctor makes a super-saturated solution of calcined alum, so that a considerable quantity of it is held in suspension in the liquid, if agitated. Before using, the bottle is allowed to stand for a few moments, so that the floating par-

ticles may settle at the bottom. The syringe is now filled with the supernatant milky liquid; we thus avoid carrying any small fragments into the urethra, which would irritate the parts and antagonise the treatment. To be injected but once, in the evening, just before going to bed.—[*Arch. M. B. Bullet. Gen. de Ther.*

Troubles of the 5th and 7th Pair of Nerves in the Course of "Locomotor Ataxia."

An observation reported to the Anatomical Society (Paris). By ALF. JEAN, Intern of Hospitals.

R. Sophy, aged 55, cook, entered the infirmary of Salpetriere, Ward, Saint Martin, No. 15, service of Dr. Luys, December 19, 1874.

The commencement of the malady goes back ten years ago; the affection began by a paralysis of the motor oculi, with a falling of the upper lid. Very soon after, there supervened diplopia, amblyopia and external strabismus; at the same time the patient complained of very intense headache with neuralgic pains. These facial pains starting from the right temporal region, radiated over the whole half of the face; these pains appeared in the form of flashes, and gave rise to a sort of convulsive tic.

These accidents continued for the period of two years, and then by degrees disappeared completely.

In 1871 fresh accidents manifested themselves, they were characterised by a general trembling coming on during the intentional movements of the patient, with feebleness of the upper and lower extremities. Walking became more and more difficult and the patient could hardly make a few steps in the Ward.

There was motor incoordination of the superior extremities more pronounced than of the inferior; these phenomena became more accentuated in darkness and when the eyes of the patient were closed. But slight anasthesia of the limbs; no analgesia, nor thermo-anasthesia.

The shooting pains appeared at the same time in the limbs; they are especially sharp in the wrist and ankle. These pains began in the arms and invaded the legs secondarily.

On the part of the face the following symptoms are encountered, which are the object of these remarks.

About 11 months ago the patient was suddenly seized with right sided facial hemiplegia; this hemiplegia persists to this day; the right half of the forehead can not wrinkle; the mouth is drawn to the left; the words are spoken in an abrupt, jerky manner; no diminution of the sense of smell, of hearing and of taste. The eye remains open by reason of the paralysis of the orbicularis, it projects, and the eyelids are turned outward; the tears spread over the cheek.

The conjunctiva is injected since the commencement of the paralysis; large vessels can be seen traversing it in every direction; the injection spreads from the border of the cornea which presents a well marked opacity over its whole inferior moiety; the right pupil is normal, neither more dilated nor more contracted than the left; the ocular globe is still the seat of neuralgic pains, during which the injection of the conjunctiva is more marked. The whole right half of the face has preserved its sensibility; over certain points there seems to be even a hyperæsthesia. The sclerotic and cornea are sensitive, and by the touch we can determine involuntary winking movements. About the right labial commissure, there are observed about 15 small papules, of some hardness, solid and red, resting on sound skin and attended with slight pruritus; the summit of the papules sometimes allows a little serous liquid to sicker out. This eruption is of several months duration.

Reflections. The interpretation of the phenomena of the eye is complex. Are they dependant upon a lesion of the 5th pair, or are they simply the result of the facial hemiplegia? this is the question that presents itself to us and which we can not entirely answer. The experiments of M. Claude Bernard have clearly shown the ocular lesions that result from a section of the 5th pair; in these cases we find first a light opacity of the cornea, with augmentation of its convexity and loss of sensibility; two days after the animal becomes blind: there is a marked chemosis, the cornea ulcerates and the eye empties itself. In our case here it is true we have an inflammatory lesion of the conjunctiva, but, this lesion remains stationary for a 12 months; there has never been any ulceration of the cornea, which has preserved its sensibility intact. and when the two lids are brought into contact artificially, so as to completely close the eye, the vascularity seems to diminish.

Besides it is well known that these local troubles only manifest themselves when the section of the 5th pair is made in front of the ganglion of Gasser. In our case if we admit a

lesion of the Trigemini, this being of a central origin would not give rise to any localised phenomena.

Some of the symptoms above related could be regarded as mechanical phenomena, dependant upon the facial hemiplegia; but, this explanation is hardly more satisfactory than the preceding one; conjunctivitis of mechanical origin is rare, and is not accompanied by neuralgic pains, as in the case of our patient.

It seems more probable, to regard these phenomena as dependant upon irritation of the trigemini, irritation which is very different from section and explainable by an invasion of medullary sclerosis, in the bulbous regions.

Since ten years, this patient complains of neuralgic pains in the right side of the face, which present the intensity and spontaneity of the flashing, shooting pains of ataxy. We also regard these pains as veritable symptoms of ataxia and think that we must attribute to them the same origin and the same development as to the pains in the limbs.

Furthermore this lichenoid eruption is in all respects similar to the cutaneous eruptions that are encountered on the trunk and more particularly on the limbs, in cases of lesions of the posterior columns of the spinal medulla; this more tends to confirm our opinion.—[*Progres Medicale*.

*On Menstruation in Relation to Ovulation.—Uterine Nidation.**

General review, from the French of Dr. A. Lutard, by H. J. GROESBECK, B. A., M. D., L. R. C. S. E., Fellow of the Edinburgh Obstetrical Society, etc., etc.

Much attention has been directed during the past year to the physiological relation supposed to exist between menstruation and ovulation. A number of more recent works,* published principally in England and America, present the subject in a

* John Williams. The normal structure of the uterine mucosa, and its periodical changes, *Obstet. Journal*, February and March, 1875, and *Proc. Royal Society*, No. 162, 1875.—Aveling, Nidation of the Human Female, *Obstet. Journal*, July, 1874, and *Gazette Hebdomadaire*, July, 1875.—Paul Mundé, Reports on Gynecology, *American Journal of Obstetrics*, April, 1876.—Bischoff, *Weiner Medizinische Wochenschrift*, Nos. 21 and 24, 1875.—Goodman, *Louisville and Richmond Medical Journal*, December, 1875.—Carl Schroeder, *Ziemssan's Encyclopedia*, vol. x.

new light, and tend to modify the theories hitherto generally admitted. Since the researches of Pouchet, Coste, Bishoff, Michel, Brierre of Boismont, Raciborski, and other authorities, whose works bring us to the year 1840, writers and teachers have as a rule maintained that menstruation and ovulation are inseperable processes and that the uterine hemorrhage is but the result of the successive evolution and periodic dehiscence of the ovum, without which it could not have taken place. "At each menstruation says Raciborski, in his memoir presented to the academy of sciences, a follicle projects from the surface of the ovary, ruptures and empties itself of its contents, without any need, as Graff and Haller pretended, of venereal excitement."

This very plausible view of the subject is still advocated by a large number of Gynecologists, but it meets to day with serious opposition from opponents who, grounding their arguments more particularly upon the anatomy of the membrane which lines the cavity of the uterus, assign to menstruation, a cause altogether independent of ovulation, without at the same time completely seperating the two processes.

Among the recent writers, upon the "structure of the uterine mucous membrane and its periodic changes" we may cite John Williams and Aveling, of London, Engleman, of St. Louis, and Barnsfather, of Cincinnati.

In the first memoir (published in the *Obstetrical Journal*, February and March, 1875) John Williams endorses the opinion advanced by Pouchet in 1842, namely, that the mucous membrane is entirely detached and expelled during the duration of the menstrual flux, and is reformed during the intermenstrual period. He maintains that menstruation is not, in itself, a complete process, but simply the termination of changes, which begin at the end of one menstrual flux and terminate with the cessation of the next following. Williams has examined the uteri of twelve women, who have succumbed to various affections, during the intermenstrual period. He has thus been enabled to observe the successive changes which takes place in the mucous membrane, and which in these twelve specimens presented a complete series. Here is the description he gives us—"Whilst the disintegration and expulsion of the uterine mucous membrane is taking place (synchronous with menstruation,) the subjacent muscular walls develop an action of proliferation of their elements, the muscular fibres producing fusiform and the connective tissue, round cells. This work of renovation begins at the internal os and extends towards the fundus. Three days after the cessation of menstruation the

lower two-thirds of the uterus are relieved by a very thin membrane, with prismatic epithelium; at the end of a week the entire cavity of the organ is so covered. But the new membrane is only fully developed some days before the appearance of the succeeding menstruation, and it is at this epoch that are presented, the most favorable conditions, for the reception of the impregnated ovum. If the impregnation has not taken place, fatty degeneration of mucous membrane, begins, at the neck of the womb and rapidly extends itself over the whole internal surface of the organ; the uterine contractions, which then manifest themselves, block up the blood in the weakened vessels of the membrane, causes their rupture and so produce the menstrual hemorrhage. From this moment begins the expulsion of the membrane, which takes place cell by cell, and continues from three to eight days according to the habit of the individual." In the opinion of this writer *menstruation* is produced neither by a *congestion*, nor by the *follicular erection* of Raciborski, but by a *molecular disintegration of the uterine mucous membrane, accompanied by hemorrhage*.

In an important memoir published in the *Obstetrical Journal*, and reproduced in the *Gazette Hebdomadaire*, (July, 1875), Aveling describes, under the term *uterine nidation*, the periodical development of the membrane which lines the cavity of the uterus. Like Williams, he endeavors to demonstrate that this function is completely distinct from ovulation and menstruation. During the inter-menstrual period, Aveling tell us, there is formed beneath the epithelium of the mucous membrane a delicate net-work, resembling in its construction a bird's nest, and which sometimes acquires considerable thickness before being expelled (*denidation*). This membrane has been given different names (*decidua menstrua*), but as the function of which it is the product, is independant of menstruation, Aveling proposes to call it the *decidua nidale*.

The time at which the phenomena of nidation are first exhibited has been no better studied than its pathology, or the moment of its greatest activity. This last appears to be during the week preceeding the appearance of the menses, when the uterus is the seat of a congestion, which notably augments its volume. Nidation is only established subsequently to the establishment of ovulation; but, if in consequence of double ovariectomy, or any other cause ovulation be *suppressed*, nidation will continue to take place regularly. Neither has extra-uterine pregnancy any influence upon its appearance.

Nidation disposes the uterus for the reception of the ovum, which without it can not arrive at maturity; but the relations existing between nidation and impregnation are not yet thoroughly understood. Mr. Power has, however, partially elucidated the question. We quote from him—"When the ovule is arrived at maturity, the uterus ought to be in a fit condition to receive it. Every derangement in these two conditions will arrest the process entirely. Thus, if the ovule is mature before the uterus is prepared for its reception, there can be no conception, and vice versa, the same result will follow if the uterus be fully fit, before the maturity of the ovule." The interesting question naturally arises—at what exact period of nidation is the uterus best fitted to receive the ovum, and permit its impregnation? It is probable that when the process of nidation is in the state of greatest activity fecundation can take place, only with great difficulty, on account of the impediment offered to the entrance of the spermatozoa by the augmentation of the decidua nidale and increased amount of viscid mucous secretion blocking the cavity of the neck. Aveling has frequently remarked that the introduction of the sound, easy at the commencement of the nidal period, becomes almost impossible as this period draws to a close. After making some remarks upon the anatomical structure of the decidua nidale, Aveling studies the pathology of this membrane. During the last days of nidation he has observed some hyperæmia and sympathetic symptoms in the mammae, which are augmented in volume, become painful and secrete a whitish serum. These phenomena disappear entirely when the nidation is completed. Also, nidation is in abeyance during lactation, but is re-established immediately after the cessation of this function. *Denidation* has been compared with parturition, when it arrives at maturity the nidal membrane is expelled in small pieces. The menstrual hemorrhage ceases when this expulsion is completed. Menstruation and nidation take place then, generally simultaneously; but as we have said, Aveling believed that these two functions have a distinct existence, wherein he differed from Williams, who considers the menstrual hemorrhage as the result of the expulsion of the nidale membrane. For Aveling believes *nidation* is indispensable for *impregnation*, but not for *menstruation*.

Disorders of Nidation. When pain manifests itself, eight or ten days before menstruation, in a uterus already the seat of chronic hyperemia, it is due to the formation of the deciduous membrane.

Hypernidation. According to Mr. Aveling hypernidation is

produced when the decidua nidale, not being detached at the ordinary time, remains, and a second membrane is formed. Power has attributed this abnormal condition to an *exaggeration* of the ovarian functions. We have, indeed, often observed the expulsion of a double nidal membrane.

Subnidation. This is very rare. The causes which produce amenorrhœa can equally give rise to subnidation. It is necessarily an impediment to impregnation; an impregnated ovum falling upon an incompletely developed nidal membrane, will in all probability perish.

Dysdenidation. Denidation is divided into two stages—a stage of separation and a stage of expulsion. The disorders that may complicate this first stage, are but little known, but those of the second or stage of expulsion have been observed and studied for a long time. The affection which is still described under the name of membranous dysmenorrhœa is according to Mr. Aveling closely related to, if not synonymous, with the disorders of denidation. In cases of hypernidation the uterus sometimes experiences great difficulty in expelling the hypertrophied nidal membrane, which blocks up the neck and impedes the menstrual discharge. Under these conditions denidation can be accompanied by much pain, bearing out the analogy between these troubles and parturition. Waller says; “Frequently there is no menstrual secretion; it is then replaced by the expulsion of a thick membrane, which expulsion is accomplished by uterine contractions similar to those of parturition.”

The works of Aveling and Williams agree upon one important point, namely, that the uterine mucous membrane renews itself during each intermenstrual period, and that the catamenial flux which follows during the expulsion of the mucous membrane (decidua nidale) is completely independent of the ovaries, and the phenomena inherent to ovulation.

A great number of facts collected during the last few years, in direct contradiction to the old theories, furnish proof that menstruation and ovulation can exist in a manner independent of each other. These facts have been thus summarised by Paul Mundé (American Journal of Obstetrics, April, 1876).

1st. If the rupture of a graafian vesicle takes place at each menstrual epoch, we should find traces of this rupture, upon the autopsy of all women who die within the first few days after menstruation. Now the most reliable authors, among them Coste, Bischoff, Ritchie, Ashwell, Paget and Williams assure us that in the great majority of cases it is impossible to discover any traces of this rupture of a vesicle.

2d. Ovulation takes place very often without menstruation. Cases where conception has taken place during lactation, or in women who have never menstruated are not rare. Some authors (Scanzoni) have even affirmed that ovulation has taken place during pregnancy. It is certainly proved that ovulation can take place at any time during the intermenstrual period.

3d. Looking at this independence of ovulation and menstruation from the other side, we possess to-day a great number of cases, in which after double ovariectomy menstruation has continued to recur, regularly, for many years, sometimes even to the ordinary epoch of the menopause. In 27 cases of double ovariectomy recorded by Goodman (Richmond and Louisville Medical Journal, December, 1875), menstruation was uninterrupted in 10 cases—was *exaggerated* in one case, and diminished in one case, and in the other 15 cases recurred at irregular intervals. To attribute the continuance of this function, in these cases, to “force of habit” is to give an unscientific and altogether insufficient explanation. But how can we explain the recurrence of menstruation after double ovariectomy, if we place in these organs the “*impetus* of the catamenial flow?” We can not. Since then menstruation can exist despite the absence of the ovaries it is natural to admit that this function, is not necessarily “*en rapport*” with ovulation. It is even permissible to contradict the hypothesis which would place the two functions under a mutual dependence.

The works of Aveling and Williams, furnishing as they do a plausible explanation of these interesting questions, merit the serious consideration of Gynecologists. In the mean time, we are of opinion that the conclusions of the different English and American writers should not be admitted without some reserve, at least until their writings have been submitted to a thorough review. The hystological description of the monthly formation of the uterine mucous membrane, leaves much to be wished for and is open to serious objections. It is at present impossible to give a final answer to these important questions, which can only be definitely settled when numerous observations shall have been collected, and numerous autopsies made of women dying a few days before and after the menstrual epoch. While waiting we can only say, that the hypothesis, which separates ovulation and menstruation, and assigns to the uterine mucous membrane a periodical renovation and desquamation, is perfectly acceptable, although not sufficiently demonstrated in the writings we have analyzed.

(TO BE CONTINUED).

Proceedings of Societies.

ANNIVERSARY ADDRESS BEFORE THE AMERICAN MEDICAL ASSOCIATION.

DELIVERED IN PHILADELPHIA, JUNE 6th, 1876. BY J. MARION
SIMMS, M. D. PRESIDENT OF THE ASSOCIATION.

GENTLEMEN—I congratulate you on the privilege of assembling here during our Centennial Jubilee.

The occasion is one of gladness and thanksgiving; and to the great Creator of the Universe we should render homage and thanks for all the blessings we enjoy, whether as a people, a profession, or as individual.

We have come together for scientific discussion, for social communion, and for the patriotic purpose of joining in the Centennial Celebration. The people from all parts of the country are coming up in vast numbers to lay their offerings upon the national altar, and to worship in this city, the shrine of their liberties. And all the nations of the earth are sending their offerings and their representatives to join the mighty throng, and assist at our great international exhibition of art and industry.

In yonder great panorama of individual enterprise, we see the positive evidence of national prosperity. Raw materials, manufactured fabrics, ores and mineral products, machinery of every kind, paintings, statuary, and other objects of art, with a thousand nameless articles of *virtu*, all attest the nation's growth in wealth and taste.

With these surroundings, we feel that we here stand on hallowed ground; hallowed! because it is the birthplace of a nation—a nation, whose government, to the surprise of the world, outlived the trials and dangers incident to its early existence. When still young, it successfully resisted the shock of foreign conflicts. Later, at a period of comparative maturity, it passed safely through the fiercest civil war the world had ever witnessed; and now, it bids fair to endure for ages, inasmuch as a stronger centralized power assures a firmer union.

A century is a brief period in the life of an nation. But in this short time we have increased in population from three to more than forty millions, nearly fourteen hundred per cent. Instead of a few sparsely-populated colonies along the Atlantic coast, our domain now extends from ocean to ocean, and from the Dominion of Canada to the Rio-Grande. No longer a simply agricultural people, we now rival the greatest nations of the earth in commerce and manufactures. We are even beginning to make a name for ourselves

in science, literature and art. And from the beginning, we have been setting up our government as a model for others. However well our form of government may suit our people and our country, time alone can prove what it may do for other people and other nations.

This place is also hallowed to us as a profession; for here a century ago was organized the first medical school in this country. It is the Alma Mater of thousands who have upheld the honor, maintained the dignity and advanced the boundaries of medicine. It is the mother of most of our medical schools, and of medical education as found among us to-day. The names of William Shippen, John Morgan, Adam Kuhne and Benjamin Rush, and those of Physick, Wistar and Dorsey, will always be honored by every true American, as shining lights of medical science during the first half century of our national existence.

This place is also hallowed to us, individually and collectively, as members of the American Medical Association; for here our organization first saw the light of day. Conceived in the State of New York, its birthplace is here.

Twenty-nine years ago the medical profession, by its delegates from all parts of the country, met here, and organized this Association, adopted a Constitution, By-laws and a Code of Ethics, and elected the beloved and eloquent Chapman its first President.

Its first meeting as a scientific body was held in Baltimore in 1848.

This Association was formed mainly for the purpose of influencing the medical schools, and thereby elevating the standard of medical education.

The standard of medical education has been raised in the last twenty-five years. But the most ardent friend of the cause must admit that this has not been achieved by the efforts of our Association. Although we have so signally failed in these, we have still a great future before us. Like our government, we have passed the danger incident to youth and inexperience, and we are now in the full vigor of manhood, possessing all the energy and determination necessary for the accomplishment of a high destiny.

Our organization has been lately much improved; indeed its machinery is now almost perfect.

Questions of representation and of ethics where the rocks upon which we struck, and well-nigh foundered. But, thanks to the wise heads and strong arms at the helm, we are safely over these dangers; and we intend to steer clear of them hereafter.

Who can forget the last meeting held in this city in 1872, when so much time was wasted in discussing the woman question and the negro question, incidentally rising out of the question of representation? Fortunately for us, these vexed questions are now all settled quietly and in the most natural way. Formerly we admitted delegates from small corporations and local societies, that were sometimes temporarily hatched up for the purpose of forcing

objectionable persons upon us. Now we are a truly representative body, made up of delegates from States and County Medical Societies; and we must, of necessity receive such delegates as any of these societies, properly organized, may see fit to send us.

If any woman entering the medical profession makes such a reputation, and such position in the profession in her own State or County, as to be sent as a delegate to us from a State or County Society, we are bound to receive her.

And if any colored man should rise to the dignity of representing a State or County Medical Society, we must receive him as such. And thus, these two knotty questions are settled forever, simply by the appointment of delegates representing masses and principles, instead of close corporations and local interests.

Local questions of ethics were a great source of annoyance and of danger to us for a long time. But now the Judicial Council decides all such questions as come before us, and from its decision there is no appeal.

Gentlemen, I congratulate you with all my heart on having eliminated these troublesome questions, so as to devote your time hereafter wholly to matters of scientific and professional interest.

And now I propose to occupy the hour by speaking as briefly as possible, and in the plainest terms, on a few topics of interest to us as a body.

Dr. Francis Gurney Smith was appointed at our last meeting to deliver the Address in Medicine, and to preside over the deliberations of the Medical Section.

I regret to announce to you that the state of Dr. Smith's health did not permit him to prepare the address, but I am happy to say he is able to perform the duties of Chairman of the Section.

It is with great sorrow that I announce to you the death of our first Vice-President, Dr. John D. Jackson. Born in Kentucky, he lived and died there, beloved and honored by all who knew him. His contributions to medical literature were varied and valuable. Cut off in the prime of life by a relentless and wasting disease, he left our Association a legacy, which we have accepted, and are in honor bound to cherish.

To Prof. Samuel D. Gross are we indebted for a memoir of Dr. Ephraim McDowell, proving beyond all controversy that he was the real author of the operation of Ovariectomy; and to Dr. John D. Jackson are we indebted for the movement set on foot to erect a suitable monument to McDowell's memory.

This subject was presented by Jackson first to the State Medical Society of Kentucky, and then to the American Medical Association at Detroit, in 1874.

Our Association at its last meeting in Louisville (1875) decided to leave to the State of Kentucky the honor of erecting a monument to the memory of McDowell, but "Resolved, that this Association recommends to each of its members and to the profession generally, to contribute annually such sums as they may think proper, until

the amount of ten thousand dollars shall be accumulated, which shall be known as the McDowell Memorial Fund, the interest of which shall be devoted to the payment of prizes for the best essays relating to the diseases and surgery of the ovaries." To raise this sum for the McDowell Memorial Fund is the legacy left us by the lamented Jackson; and I beg to impress upon the members their obligation to contribute to this object; and I hope, for the honor of the profession, that this Centennial period will be signalized by a most liberal subscription.

MEDICAL EDUCATION.

Perhaps I should apologize for presuming to say a word on the hackneyed subject of medical education. It has engaged the attention of the Association at every meeting since its formation.

What with Presidents' addresses, reports of special committees, and discussions in general session, volumes have been written on the subject, and yet we have not influenced the course of the schools in the least.

Dr. Wm. O. Baldwin, of Alabama, President of the Association in 1869, in his Inaugural Address, ably set forth the defects of our method of medical education, and proposed as a remedy, the establishment of a great national university, under government auspices, at the capital.

If the large sum necessary for such a university could be obtained from the government, its graduates would doubtless rank with those of the best foreign universities. I have felt greatly interested in Dr. Baldwin's scheme, and anxious to see it carried out. To this end, I have consulted some of the wisest and ablest educationists in the country. I have also taken counsel of some of the great political leaders of the day, and, I regret to say, I found so little sympathy, so little encouragement, that I have been unwillingly forced to let the subject rest in abeyance for the time-being.

While medical colleges are so easily multiplied, and while they are mere private corporations, running in competition with each other, we have nothing to hope in the way of reform from them. That first, second and third course students, if there are any such, should sit on the same benches at the same time, and hear the same lectures year after year, is an absurdity that exists only in our own country, and here it has existed for a whole century without any change or modification. But it can not go on so for another century.

Already Chicago and Boston take the lead, and inaugurate the true scholastic method of classes, and terms of study, and courses of practical instruction, now fully appreciated by such young men as are in earnest in acquiring a thorough medical training.

The Harvard method, with a salaried Faculty wholly independent of fees from students, is the only plan by which we can ever hope for a medical degree of any real value.

Five or six hundred thousand dollars given to the Medical Department of the University of New York, or to either of the schools of New York or Philadelphia, properly invested, would yield an annual income sufficient to endow the professorships in said school. This would make the professors independent, and they would not be compelled to graduate young men merely for the sake of the numbers graduated, irrespective of qualification.

The University of Virginia is, perhaps, the best training school in the country, but unfortunately its want of hospital advantages cripples its practical teaching.

How could any rich man do more for his country, more for science, more for education, more for humanity, than to liberally endow one of our already established medical schools, and thereby place it upon an independent footing?

There are any number of wealthy men among us who would be glad of an opportunity to do this, if the subject could be properly placed before them.

May I not hope that the very words I now utter may be like seed "that fell on good ground and brought forth fruit, some thirty fold, some sixty, and some an hundred?"

CODE OF ETHICS.

We boast of a Code of Ethics, the best ever given for the government of medical men; and we urge it as a model to be adopted by the profession in other countries. I would not shock the moral sense of this august body by speaking of it in irreverent terms; for I know that there are many, indeed a large majority of this Association who believe it to be as perfect as the Decalogue, and as incapable of improvement.

It is looked upon by some of its High Priests as the Holy of Holies, and not to be desecrated by the touch of vulgar hands. It is only by observing the practical operation of laws that we can judge of their fitness and usefulness. Let us measure our Code by this universal standard.

Twenty years ago it was considered disreputable for a physician to put on his door, or in his window, a plate giving his office hours. Now, every one does it, greatly to the convenience of both physician and public. A few years ago a physician in a neighboring city was expelled from a Society for inserting his name in the general Directory, with the announcement of his specialty and his office hours. In France they do things differently. There a doctor can not put his name on the door of his apartment, but he can advertise himself in the Directory as broadly as he pleases. Usage makes what is right in our country, wrong in the others.

A gentleman high in the ranks of the profession, holding a distinguished position among us, wishing to change his place of residence, writes to me to know how he can notify the world of his intention without violating the Code of Ethics; and he and a friend of

his, a well-known stickler for the inviolability of the Code, hold grave consultations over the easiest way of getting round its provisions without a flagrant violation of them. These are honest and honorable men, and would not wilfully do anything wrong. But they feel that they are hampered by rules that are unjust and oppressive. Pardon me if I ask you, "Is the Code of Ethics up to the requirements of the time, when it compels honorable men to do dishonorable things to promote an honest action?"

Under our Code, all consultations are secret and confidential, and the friends of the patient are never to know that there was a difference of opinion between the consultants. But was there ever a difference of opinion on such occasions that it did not leak out, sooner or later?

It is derogatory to professional character for a physician to take out a patent for a surgical instrument or any other invention. A distinguished physician invents a galvanic cautery. He has spent much time and a large amount of money in perfecting his apparatus. According to our Code, he can not, he dare not, take out a patent for it as any other honest man could do, simply because he is a practising physician. But why should not the physician reap the reward due to talent and inventive genius as well as any other man? Does the profession at large, or does the public, derive any benefit by this robbery of the inventor? None whatever. We simply compel him to give his invention, his time and labor, to enrich the instrument-maker. A few brave men, daring to assert their inalienable rights, would establish a precedent that would soon become a law, rendering this clause of the Code, as in other instances, a dead letter.

Who among us is ignorant of the value of Dieulafoy's Aspirator? A young man not over thirty, he had the courage to patent his invention. The profession in France at first turned the cold shoulder to him, and said it was a pity that such a talented young man should have made such a mistake as to patent his invention! But now he is called in consultation with leading men in the profession; and the younger members of this Association will live to see him a member of the Academy of Medicine, in spite of his patent.

A gentleman in a neighboring State invents a pessary of great value. He has spent fifteen years in working it out. He has spent a large amount of money in perfecting it. He is poor and in bad health from a dissection wound received five years ago. He writes to me to ask what he is to do to reap some reward for his time and labor. We say, by our Code, that he must make a gift of his invention to the profession. But he can only give it to the instrument-maker, and not to the profession. His only course is to quit the ranks of a liberal profession, and enter those of honest manufacturers, and then supply us with his instruments from his own factory. Out of the profession, he is out of its jurisdiction.

The Code of Ethics is violated every day either wilfully or igno-

rantly, not only by the rank and file, but by men high in the profession, men who are considered leaders, advanced thinkers, and workers.

How many of you prescribe Chlorodyne, which is almost a specific in choleroïd affections? And yet it is a secret remedy. Who among you has never prescribed McMunn's Elixir of Opium? It too is a secret remedy. Even Henry's Calcined Magnesia is made by a secret process. The Tolu Anodyne is daily prescribed in New York and New England by hundreds of leading physicians, and it is but another name for a preparation of *Cannabis Indica*.

The prescription of all such remedies is a flagrant violation of our Code of Ethics. But we seem to condone the act, because usage and interest justify it.

There is not a man within the sound of my voice who can not call to mind some violation of the letter or spirit of the Code of Ethics, that has occurred under his own immediate observation. Indeed, when we speak of violating the spirit of the Code, we may all as one man cry out, "He that is without sin among you, let him first cast a stone."

Several medical gentlemen, notably in New York, Philadelphia, Baltimore, and elsewhere, have lately rendered the greatest service to the profession and to humanity by furnishing us with animal vaccine virus. As they are engaged in a commercial speculation in the virus, and as they resort to conspicuous advertisements of it, they are plainly acting in opposition to both the letter and the spirit of our Code of Ethics. But where is the man among us who is such an idiot, so dead to all sense of honor and right, as to charge these noble philanthropists with base purposes? Thus we see that the Code is of necessity a dead letter the moment it comes in collision with the duty and interests of the profession at large. The introduction of bovine virus brings about a revolution in vaccination that effects not only the usefulness of the medical profession, but the safety of every man, woman and child living, and the welfare of future generations. How absurd then would it be, if its universal beneficence could be cramped by the silly legislation of a generation and a time, when human virus, with all its defects, and all its dangers, was the only known means of vaccination! Here common sense and common interests have, silently, almost imperceptibly, established a higher law that overrides the Code and leaves it inert.

But there is another stand-point from which to view our Code. Did it ever occur to any of you that it is capable of being used as an engine of torture and oppression?—that men jealously, maliciously-intent upon persecuting a fellow member, may distort the meaning of the Code to suit their malign purposes, thus entering into a regular conspiracy to blacken character, and that under the sanctity of the Code's provisions?

Illustrations of this are not wanting, and I could give you some astounding details. But in mercy to you, and in pity for the poor

poltroons who, in the name of virtue, could so prostitute themselves to vicious acts, I spare you the recital. I have said, perhaps, too much on this theme; certainly enough to put you to thinking. This is the first time that the validity, the constitutionality of the Code has been openly called in question. But every thinking man here, with a particle of self-respect and self-reliance, has at times felt an inward protest against its unequal operation. I do not ask you to appoint a committee on the Code. Let it stand as it is. Honorable men do not need its protection. Dishonest men are not influenced by its edicts. We must educate the profession up to the recognition of a higher law, the unwritten Code regulating intercourse between gentlemen. This is the Code that governs in England and France. The man that violates it is by common consent dropped out, ignored and allowed to vegetate in isolation.

The time will come (but not yet), when your organic laws, like the constitution of our country, will require modifications and amendments to suit a higher intelligence, a broader education and a greater destiny.

Remember, that when our Code was adopted, we had no telegraph, no ocean steam navigation, but few railroads; the profession was not educated up to its present level, and the press was not the organized power in the land that it is to-day. Modern thought and modern process, keeping pace with the physical development of the age, will never be content with the slow movement of olden times.

STATE MEDICINE AND PUBLIC HYGIENE.

State Medicine, as it is called, is comparatively a new science, and is now occupying a large share of public attention, both at home and abroad.

In connection with this subject it is my painful duty to announce to you the death of Dr. Thomas M. Logan, of California, late President of this Association.

To him are we mainly indebted for the movement (1871), that eventuated in the establishment of the section on State Medicine and Public Hygiene (1873); a section that embraces some of the best talent in the country, and is now doing a most important work.

Medicine has done much for the relief of individual suffering, and for the prolongation of human life; but now giving aid to governments and municipalities, it is instituting organizations for the prevention and suppression of disease on a scale of efficiency and grandeur never known before.

State Medicine does everything necessary to protect the health of communities and States. It investigates the air we breathe, the water we drink, the food we eat, the clothes we wear, the fuel we burn, the houses we live in, the soil we cultivate, the habits and industries of life, the origin and nature of endemics and epidemics.

the method of their transmission, and the means of their prevention, and of their suppression wherever found.

Its object is to discover the causes, and to prevent the origination of disease, to prevent its spread, to circumvent it, to extinguish it, whether it be zymotic, contagious or specific. In short, it is the function of State Medicine to protect the public health, which is the life of the nation.

While our Sections of Medicine, Surgery and Obstetrics deal with subjects touching the welfare of the individual, that of State Medicine and Public Hygiene deals with subjects touching the welfare of the masses.

The address in State Medicine and Public Hygiene by the distinguished Henry I. Bowditch at our last Annual Meeting has awakened a new interest in the subject, and we recognize in it the beginning of a great movement for the establishment of a Sanitary Bureau, or Council of Health at the seat of government.

Already nine States have organized State Boards of Health :

Massachusetts.....	in 1869
Louisiana.....	" 1870
California.....	" 1870
Virginia.....	" 1872
Minnesota.....	" 1873
Michigan.....	" 1873
Maryland.....	" 1874
Georgia.....	" 1875
Alabama.....	" 1875

Of these only four belong to the original thirteen States.

How strange to see the young sister California taking the lead of the great States of New York and Pennsylvania! Massachusetts has often led New York and Pennsylvania in political matters, and she leads them now in the more important matter of the formation of a State Board of Health.

Let us hope that the wise counsels of the American Medical Association may soon universally prevail in the several States, and that we shall, at no distant day, see them all falling into line with State Boards of Health, ready for mutual co-operation in the great work before them.

When this is done, I shall expect to see one of the most terrible scourges of the human race, now wholly ignored by Boards of Health, brought at once under control, and eventually stamped out from among us.

Boards of Health should take cognizance of, and have control of any and every focus of infectious disease, call it by what name you may.

Has it a habitat? Can it be broken up? Has it the power of transmission from one to another? Can its transmissibility be arrested? Then it is the bounden duty of State Medicine, with

its organized Health Boards, to search out its abode, to take charge of, and heal those already diseased, to prevent the spread of the infection to the well, and thus to eradicate the poison of contamination.

The Board of Health that fails in this, fails in the great object of its organization. And this brings me to a subject that I wish to press upon your consideration.

Prof. Gross delivered the Address in Surgery at the Detroit meeting in 1874, and took Syphilis as his subject. This address, like everything that emanates from his prolific brain, was complete and exhaustive. Viewing the subject from every possible standpoint, he had the courage to recommend legislation to restrain the spread of syphilis.

A Committee was appointed, with Dr. Gross as Chairman, to report on the subject at the next meeting. This committee reported at Louisville (1875), and recommended partial legislation on the subject. The whole subject was referred back to the Committee for a further report to be made at this meeting.

I would not infringe upon the duties of this Committee, but I hold views on this subject that I wish to state broadly before the Association. No grander theme could possibly engage the attention of the profession at large. Whatever good is to be accomplished in this matter must emanate from us, and be carried forward by us. It is wholly unnecessary for me to use any argument to prove to you the importance of the subject. This has been already done by Prof. Gross.

The subject of syphilis is rarely mentioned in polite circles, even by medical men, and then only in whispers. It is our duty to enlighten the public upon all questions of public health, and particularly upon this one. Indulge me then for a short time, while I say a few words on this subject—words addressed nominally to you, but really intended for those behind and around you, who live in darkness and utter ignorance of the dangers that threaten them.

So far as the well-being of the human race is concerned, I look upon the subject of syphilis as the great question of the day. It was formerly a question of treatment, of mercury or no mercury. But that time has passed, and now it is a question of prevention, of eradication, of the protection of the well against the contamination of the sick. In other words, it is no longer a question for the therapist, but one for the sanitarian, the philanthropist, the legislator, the statesman. It is one of public hygiene and public health, and, as such, we are bound to meet it. The time has come when we can no longer shut our eyes to its evil influences, and we must deal with it precisely as we did with other great evils that affect the general health of the people.

If yellow fever threatens to invade our precincts, we take steps to arrest its progress at once. If cholera sounds the alarm, we immediately prepare to defend ourselves against its ravages. If

small-pox infests our borders, we circumvent and extinguish it. But a greater scourge than yellow fever and cholera and small-pox combined, is quietly installed in our midst, sapping the foundations of society, poisoning the sources of life, rendering existence miserable, and deteriorating the whole human family.

Does any one for a moment think I exaggerate the evil consequence of this dreadful disease? To the medical profession the truth, as I state it, is well known; but as I said before, the public at large are ignorant on this subject, and it is our duty to enlighten them, to point out the danger, to show the means of protection, and to lead the way of escape. Let us hear what a few of the most eminent medical men now living say on the subject.

Sir Thomas Watson says: "It counts its victims not only in the ranks of the vicious and self-indulgent, but among virtuous women and innocent children, by hundreds and thousands."

Sir William Jenner says: "I can not too strongly express my conviction of the gravity of syphilis at the present time. It is one of the most fatal diseases we have in this country. I think it a disease *entirely preventable*. Children and others suffer largely from it without any act of their own, and I think it ought to be prevented."

Mr. Prescott Hewitt also testifies to its ravages among innocent children, and says he knows of no disease more terrible, and that it should be prevented by legislative action.

Mr. Simon (Medical Officer of the Privy Council) said that the infections of the brothel were oftentimes carried into simultaneous or subsequent wedlock, in some cases fixing their obscene brand even on the offspring of such marriages.

Sir James Paget says: "It would be difficult to overstate the amount of damage that syphilis does to the population," and that "a number of children are born, subject to diseases which render them quite unfit for the work of life." He further said: "We now know that certain diseases of the lungs, the liver, and the spleen, are all of syphilitic origin, and that the mortality from syphilis, in its later forms, is every year found to be larger and larger." Sir James Paget further says that he has seen five surgeons die, and fifty others suffer more or less from the infection received from patients.

The facility with which syphilis is communicated is marvelous. It is often given in a kiss. French medical literature teems with examples of this sort. Prof. Gross has seen many such cases. He saw a young lady who had a hard chancre on the lip contracted by kissing. In a few weeks her blood was completely poisoned; subsequently she married, and in due time she gave birth to a child that died in eight weeks, covered with syphilitic sores on the vulva and nates.

Prof. Gross also tells us that an "endemic of syphilis occurred in Brives, a little town in France, in 1873, fifteen women, nine children and ten men having been affected in rapid succession. Great ex-

citement for a time prevailed, wife accusing husband, and husband wife, of conjugal infidelity, when it was at length ascertained that the cause of all the trouble was a midwife, who had a chancre upon one of her fingers, contracted in the exercise of her profession, and who had thus carried the poison from house to house."

A short time ago a healthy-looking young man obtained a situation in a glass factory in the north of France. A few weeks afterwards a dozen or more of the glass-blowers had syphilis in some form or other, and were unable to tell how they got it. But the attending physician soon traced the disease to the new-comer, who was found to have a syphilitic ulcer in his mouth, and the others were inoculated by using the same blower that he did.

I have known two medical men infected with this disease by patients, while in the discharge of their professional duties. Each had a slight scratch or abrasion of skin on the fingers, and by this channel the poison was carried into the blood. One of them died most horribly in a mad-house from disease of the meninges of the brain induced by this accidental syphilization; while the other is still eking out a miserable existence, his whole system being pervaded by the deadly poison. Nurses are frequently infected by children born of parents, one of whom (always the father) has had syphilis; and diseased nurses often infect innocent sucking babes, born of perfectly healthy parents. I have known a drunken vagabond husband to contract syphilis in a low brothel, and communicate it to his wife, who unwittingly gave it to her four children, simply by using the same towels and wash-bowl.

The nature of the disease, and the manner of its propagation, were not recognized till eruptions and putrid sores, and ulcerated throats, and agonizing pains, and blindness in two of the children indicated too plainly the unmistakable character of the disease.

Some years ago, a handsome, dashing young fellow captivated the heart of a beautiful and accomplished young girl, the daughter of one of our wealthy merchants. The sensible father opposed the marriage. But the foolish girl would have her own way, and they were married. While on their bridal tour this innocent girl and confiding wife, not seventeen years old, was syphilized by her husband, and her blood was soon poisoned. In due time she became a mother. One of her children had syphilitic eruptions, one lost the bones of the nose, and two others were variously affected with symptoms of a loathsome disease that circulates in their blood, and which will lay the foundation of disease in their offspring, if they should live to have any.

The blood of the loving wife is often poisoned by the seminal fluid of the husband, infected before marriage. I have seen an innocent young wife with the vagina full of venereal warts, only a few weeks after marriage with a man who supposed he had been cured six months before. Many years ago I knew a rich widow who married a man socially beneath her station in life. It was a great grief to her family. But a greater was in store for them.

The husband who seemed vigorous and healthy, had had syphilis a few months before marriage, but thought he was cured. Six months after marriage his wife had syphilitic iritis, and other symptoms of constitutional infection, and she soon became perfectly blind, and in the course of a year she died in the greatest agony from disease of the membranes of the brain, accompanied by nodes and other symptoms of constitutional syphilis; and yet the husband, who by his kisses and his seminal fluid poisoned his wife's blood, and thus murdered her, had only a slight scaly eruption on the scalp and in the palms of the hands.

I have seen a cook and a chamber-maid with syphilitic ulcers on the fingers. Think for a moment of the danger to innocent people from such a disgusting thing.

Primary syphilitic ulcers are not generally painful. Hence the subjects of them think they are little accidental sores, or abrasions, that will soon get well. These sores often remain stationery for a while, and then heal up. Again they degenerate into a sloughing state, attended with great suffering. But it is when the disease becomes constitutional, invading every part of the system, producing ulcers in the throat, warty vegetations on the vulva and about the verge of the anus, or eruptions on the skin, or thickening of the periosteum, nodes on the long bones or on the os frontis, or disease of the liver, spleen and other digestive organs, or ulceration and loss of the bones of the nose, or blindness and disease of the meninges of the brain, or even softening of the brain; in short, when its ravages are traced in every part of the human frame, then can we realize the nature of this terrible scourge, which begins with lamb-like mildness, and ends with lion-like rage that ruthlessly destroys everything in its way. Skin, mucous membrane, the blood, viscera, bones, brain,—all are saturated with a poison which is ineradicable; and death comes at last, a merciful messenger of relief from such a disgusting and wretched existence. I need not add another word to show the loathsomeness of the disease, nor to prove that we are at every turn met with the danger of infection.

Give me a moment to inquire into the relative frequency of this disease in localities where registration brings out reliable statistics.

In the Out-patient department of Guy's Hospital 25,800 cases of venereal disease are annually registered in that one institution, being 43 per cent. of the total number of out-patients registered; in the Hospital for Diseases of the Skin, 10 per cent.; in the Throat Hospital, 15½ per cent.; in Moorsfield Hospital for Diseases of the Eye, 20 per cent.; in the Work-house Infirmary, 10 per cent. Among the poor in London applying for relief at the hospitals there are upward of one hundred thousand annually affected with syphilis in some of its forms. If such a large percentage of British blood is thus poisoned with this loathsome disease, how is it with English-speaking Americans? Our sanitarians will tell you that New York and Philadelphia, Boston and Buffalo, Chicago and St. Louis, Cincinnati and Louisville, New Orleans and Mobile, Sav-

annah and Charleston, Norfolk and Richmond, Baltimore and Washington, are all relatively as rotten as London, Glasgow, Dublin, Liverpool, or any city on the Continent.

And from recent development it appears that San Francisco is worse off than we are. In an able speech delivered by Senator Sargent, in the United States Senate, on the 1st of May, on the existing treaty between China and this country, he brings forward testimony to show, that of the hundred and fifty thousand Chinese on the Pacific slope, there are not a hundred families, and that ninety-nine hundredths of the Chinese women imported into California are sold and held as slaves, slaves to be used wholly and solely for the purpose of prostitution, and that their presence necessarily breeds moral and physical pestilence.

According to the evidence of Dr. Toland, even boys eight and ten years old have been syphilized by these degraded wretches, who are allowed to openly solicit in the streets, tempting old and young alike.

Shall it be said that we, the representatives of the medical profession of a great nation, the custodians of the health of forty millions of people, cognizant of all these facts, will longer let the people remain in ignorance of the dangers that surround them? No, my friends! We must be up and doing. We must follow in the footsteps of our illustrious leader, Prof. Gross. We must sound the alarm. We must no longer whisper, but we must boldly proclaim the truth, and scatter it broadcast over the length and breadth of the land. We must call to our aid the press, the pulpit, yea, the women of the country. To do all this we must show the world that we are in earnest. We must here issue our orders, and call upon our State and County Medical Societies to co-operate with us. We must keep the subject not only before the profession, but we must keep it before the people, and we must appeal to legislation to give us the power to blot out this blight from among us.

I have not time to speak of what has been done in France and England for the prevention of the spread of syphilis. Suffice it to say, that the plan adopted there is not the one for us. We want no legislation that looks to licensing prostitution as in France, and we want no partial legislation, as we find in the "Contagious Diseases Act" of England. We would not outrage religious sentiment by adopting a system of fostering vice; nor should we subject the hardy soldier, even for his own good, to invidious restrictions not imposed upon others in the community. Besides, how absurd would the English system work with us, when we have but a nominal army, and that scattered over the frontier, away from the pale of civilization and its worst vices! Class legislation in any shape, and for any purpose, is distasteful to the people of any country, and especially of ours.

We know that cholera has a home where it is perpetually generated; that transplanted, it flourishes for a while, then dies out, and seldom reappears, except by fresh importations from its original

source of supply. But syphilis, unlike cholera, originating when and where it may, always fixes itself in great populous centres, taking up its abode in the haunts of ignorance, poverty, squalor, filth and vice. From these low conditions of life, it mounts gradually higher and higher, and sometimes to the highest, so that in the end whole communities, so to speak, may become contaminated.

To protect the public against its ravages, we must strike at the root of the evil. We must seek it out in its hot-beds, and circumvent it with such regulations as to prevent its transmission. We must ask for such laws as will confer upon us the power of dealing with this disease as we already possess with regard to cholera and small-pox.

The carriers of trade between nations, and between great commercial centres in the same nation, are the carriers of syphilis. Syphilis is carried from city to city by men, and women scatter it far and wide in communities. One man may inoculate a half dozen women during the few days his ship lies in port, and these half dozen degraded women may transit the disease not only to scores of men, but hundreds and thousands may trace their ruined health, directly or indirectly, back to the half dozen women who were infected by one man. We must then manage to get the control of the men who are likely to import the poison, and we must get equal control over the women who will assuredly disseminate it through the community. How is this to be done? is a question that has been asked over and over again, but never answered to the satisfaction of both religionists and philanthropists.

There can be no difference of opinion among us regarding the two following propositions:

1st. We want a system of sanitary inspection and control that will enable us to prevent the importation syphilis from abroad.

2d. We want a system of sanitary inspection and control that will enable us to take charge of the subjects of syphilis at home, and prevent them from spreading it through the community.

Every well-organized city government has its Board of Health. This Board has or ought to have the power to protect the public health against all contagious or infectious diseases. It already has the power of quarantining vessels, having on board cases of cholera, small-pox or yellow fever. Whenever small-pox is found in a city, the Health Board has the power of dealing with it in the most summary manner, of isolating it, and preventing its spread; in other words, of extinguishing it.

Now what I propose in regard to syphilis, is simply to give to the already existing Boards of Health, in the various cities, the same power over syphilis that they now possess over cholera, small-pox and yellow fever. They now have the power of ferreting out small-pox, and of sending it to hospitals for treatment; and they should have the same power of searching out the abodes of syphilis, and of sending its victims to hospitals for treatment.

On all steamers or sailing vessels, whether foreign or coastwise, entering port, the surgeon of the vessel should be required to make affidavit that he had examined personally every seaman, and every male steerage passenger, on the day preceding their arrival in port, and that there was no case of cholera, small-pox, yellow fever, syphilis, scarlatina, or other infectious disease aboard. If there should be syphilis, then the subjects of it should be taken in charge by the Board of Health, and sent to hospital for treatment, to be retained there till cured, or to be returned to the vessel from which they were taken, whenever said vessel should be ready to sail from port again. If said vessel had no surgeon aboard, then it should devolve upon the quarantine officer to examine every sailor and every steerage passenger, before landing, and to send any and every case of syphilis to hospital for treatment. On all vessels, foreign and coastwise, the quarantine officer should possess the same power of personal inspection and detention.

For stamping out the disease in towns and cities, their Boards of Health must have plenary powers of an absolute character over syphilis, not more so, however, than they now possess over small-pox.

Thus you see that I would simply include syphilis in the great family of contagious or communicable diseases, and make it subject to the same laws and regulations that we already possess for their management.

Do this, and we can not be accused of licensing vice, or of fostering adulterous intercourse. In cholera and yellow fever, and in small-pox and syphilis, we recognize cruel and fatal diseases, easily communicable, each attacking the human family in its own peculiar deadly way; and we propose to deal with them all in the same manner, taking the surest, safest and quickest method of protecting the community against their pestiferous presence, and of preventing their spread among the well.

Now let me show you how easy it will be to do all this in the great city of New York, and if practicable there, it will certainly be more so in other places.

The passage of the Metropolitan Health Law was accomplished after years of agitation, not unlike that which occurred in England preceding the enactment of the sanitary laws which now give to that country pre-eminence in the care of public health.

The Metropolitan law, though modelled after the English, is much more perfect in its details. It invests authorities with arbitrary powers to meet every emergency when the public health is in peril, and yet, it fully protects the public from any abuse of those powers.

For example, the Health Board may declare any matter or thing a nuisance detrimental to health, and dangerous to life, but the person proceeded against may demand a hearing before a referee, and bring evidence to prove that the matter complained of is not a nuisance. Then the case receives careful consideration by experts,

and the final action of the Board is governed by the decision of the referee. The Metropolitan law was passed in 1866, and immediately after the organization of the Board, cholera made its appearance in New York.

In all former epidemics, this pestilence ravaged the city without "let or hindrance." Now it was met at the very outset with organized resistance, and never attained the proportion of even the mildest epidemic.

The plan adopted to control it was perfect in all its details.

Acting upon the belief that cholera is a communicable disease from the sick to the well, by a contagium, the rule in every case was to isolate the patient, and destroy the excreta immediately. A well-organized corps of men, trained to handle the sick and use disinfectants, was in waiting night and day to attend at once upon every reported case.

The cases were reported by telegraph, and frequently patients seized with cholera were in charge of these sanitary officials within an hour after the attack, and every precaution taken to prevent the spread of the disease.

So effectually was this work done, that scarcely a second case occurred in the same family.

In the same manner, the Board, acting upon the same principle, stamped out relapsing fever and small-pox; the sound sanitary principle underlying its action being, that *contagious diseases can be controlled by isolation of the sick, and the destruction of contagia.*

So much for the efficiency of a Board of Health that knows its duty, and having the legal power, dares to do it.

But how are we to bring syphilis under such easy subjection as we have cholera and small-pox? It is the simplest thing in the world. I have told you that the Metropolitan Board of Health possesses arbitrary powers over these, and all we have to do is to get the Legislature to amend the "Act creating a Metropolitan Board of Health," so as to give it the same arbitrary power over the subjects of syphilis, that it has over other contagious diseases.

The thing is so simple, so self-evident, that I only wonder it was not done long ago. It requires no complex legislation, no cumbersome machinery, no irksome detail. In the Metropolitan Health Board, we find everything already prepared for engrafting this amendment upon its organic laws.

Let us here pledge ourselves never to relax our efforts till we accomplish this great and good work.

I have detained you too long. My apology must be found in the nature and importance of the subjects I have been pressing upon your attention.

Gentlemen, I thank you from the bottom of my heart for the patience with which you have heard me.

And now feeling most sensibly my unfitness for presiding over your deliberations, I appeal to your generosity for that co-operation and indulgence that any of you would surely receive from me if we could only change places.

CINCINNATI MEDICAL SOCIETY.

Reported by B. Stanton, M. D., Secretary.

The Cincinnati Medical Society met June 13, 1876, Dr. Comegys in the chair. The minutes of the preceding meeting were read.

Dr. Murphy reported some cases of opium eating, which had been under his care quite recently. In these cases he gave quinine as a substitute.

In the first case, that of a physician, who, in December last, began the use of morphia for a supra-orbital neuralgia. The habit increased until he got to using \mathfrak{z} iij in two months.

When he placed himself under Dr. M.'s care he was anxious, restless, did not sleep well. Quinine in doses of grs. xij was given in the morning, at noon, at four o'clock, and at bed-time. On the second day he lost his appetite; his bowels became loose. On the second night chloral and bromide of potassium were given to procure sleep. The quinine was given for one week, the doses being reduced in number to three per day. Morphia, in doses of gr. $\frac{1}{4}$, was given for three days, then discontinued. The bowels remaining loose, Hope's mixt. was given on the fifth day. On the fifth, sixth and seventh nights he slept well. At the end of one week he returned to his home, since which Dr. M. has not heard from him.

One week ago he was consulted by a man who had some functional disturbance of stomach, and some trouble in the liver, resulting from jaundice, some pain in hypogastric region. For six weeks he has taken \mathfrak{z} j of opium per week. In treating this case opium was discontinued at once, and quinine, grs. xij, given at six and ten o'clock A. M., and four and eight o'clock P. M. His bowels became loose soon after the opium was discontinued. Chloral and bromide of potassium, grs. xx of each, were given to procure sleep. After a few nights he slept well without any narcotic. Although forty-eight grains of quinine were given daily, no quinism was produced for several days. When it was produced the doses were gradually diminished.

Dr. Hough said that five years ago he had a female patient who was in the habit of taking one pint of laudanum per week. Having an intermittent fever, she consulted Dr. H., who ordered the discontinuance of the opium, and prescribed quinine in doses of eight grains. For the first four days no effect was produced on the chills. The dose was then increased to ten grains, which produced some quinism and checked the chills. No laudanum was taken after the quinine was ordered except one clandestine dose on the second day. There was, as a result of the treatment, a considerable abatement of the taste for opium, and the habit was abandoned.

Dr. Kemper asked whether the cure was permanent. He thought the treatment by gradual diminution better than leaving off the opium at once. He reported a case in which death followed the

sudden discontinuance of morphia, no supporting treatment having been given.

Dr. Comegys said from cases he had had under his care, he was satisfied that the better way is to cut off the opium at once, but it is impossible to treat these cases at their homes, they must be under restraint. Such patients require to be well fed, tonics given, and rest secured by chloral or bromide potassium. Sometimes the temporary use of stimulants may be required. Treatment should be continued several weeks. The temporary substitute of ext. conium with carb. of iron is sometimes advisable.

Dr. Holdt asked whether, from a physiological stand-point, it is not better to discontinue the use of opium and alcohol gradually.

Dr. Mackenzie said it is more a matter of therapeutics than physiology. It is a matter of policy to stop at once; of course, the suffering is greater, but it is sooner over. He would not allow the use of alcohol even in diminished doses, and the same of opium. In one of the European hospitals he saw thirty patients restrained in straight jackets, alcoholic liquors having been at once discontinued, as was the custom in that hospital. There is not a precise analogy between opium and alcoholic liquors.

Dr. Holdt said a patient whom he had seen that day had been in the habit of taking opium and morphine in large quantities. The effect of such a drug on the nervous centres is the change of nutrition; a habitual change of molecules is produced. A sudden stoppage incurs the risk of destroying the arrangement of molecules. In some cases the opium or alcoholic liquors may be stopped at once, but, in most cases, a great risk would be incurred by so doing. A gradual decrease will cause a gradual change; a gradual return to a normal condition. In a majority of cases a man, who has used alcohol for a long time, breaks down if suddenly denied his stimulus.

Dr. Murphy said that in the majority of cases the opium or alcohol could be left off at once, but in some cases it could not be done. Judgment must be exercised. The changes which *Dr. Holdt* says are going on, are not going to be lessened by lessening the quantity of alcohol or opium. He could see no reason for continuing them even in diminished doses, unless there was danger of absolute failure of the heart's action.

Dr. Mackenzie said that in regard to molecular forces, of which *Dr. Holdt* speaks, all nutritive forces are molecular forces. If we find, by experience, that these things can be cast off at once, no theory should prevent our following the dictates of experience. He recollected reading in one of *Gairdner's* lectures, that the only treatment necessary is feeding and cutting off the alcohol, except when the drinker is old and exhausted.

In using the expression *molecular changes* in this discussion, it is certainly a matter of importance that we have a clear conception of the meaning of the term, and of the kind of molecules involved. Are we speaking of changes in the "*organic molecules*" of the

older biologists, or of those molecular structures now so well understood by chemists, and that may be called *chemical molecules*? If it be the latter to which we are referring, as I suppose is the case, then we should not forget that there are *two classes* of *molecular changes*, in one of which there is a building up of molecular structure into forms of combination, more and more complicated by the union of larger and larger numbers of elementary atoms or their equivalent, while in the other class of changes the reverse is the order, that is, a breaking down of complicated molecules into simpler ones. The first has been called *progressive*, and the latter *retrogressive*, metamorphosis.

Now, when we regard the molecules of the remedies and other agents spoken of in this discussion, as taking part in, and influencing, molecular changes in physiological and pathological processes, we observe a very important and significant difference between such bodies as alcohol on the one hand, and morphia and similar bodies on the other. While alcohol contains only a few atoms in its molecule—only two carbons, six hydrogens and one oxygen—such bodies as morphia contain a very large number, in some cases hundreds of atoms. So that while alcohol is to be regarded as on the upward scale of changes, such bodies as morphia, for instance, are to be regarded as on the downward scale. And, besides this, another very important distinction is that morphia is one of those peculiarly retrogressive bodies containing nitrogen, which element possesses a peculiar tendency to degenerative decomposition. By these remarks I wish to be understood that we are not justifiable, on the grounds of molecular science, in classing together, as at all similar, the therapeutics of two such radically different bodies.

Dr. Murphy objects to taking the results of chemistry as guides to medical practice. Clinical observation is only another name for experiment, and, chemistry, is wholly an experimental science. What I have been saying are not matters of theory, but experimental results; and no one is, more than myself, disposed to be governed by experimental results, that is, actual observation.

Dr. Holdt said that in the treatment of delirium tremens he gave quinine in large doses to procure sleep; also in acute articular rheumatism, where opium had failed to produce sleep, a 20 gr. dose of quinine was successful. The patient was not an opium eater.

The Cincinnati Medical Society met June 27, 1876, *Dr. Comegys* presiding. The minutes of the preceding meeting were read.

Dr. Kearney said, in answer to a question by the President, that one fatal case of sporadic cholera had been reported to the Health Office, also one fatal case of cholera morbus. He had heard of some cases of cholera morbus that had recovered.

Dr. Comegys said he had, that morning, been called to see a lady on Ninth street, who had severe vomiting and purging. She was very pale, exhausted, features shrunken, pulse frequent, some cramps in abdomen, none in extremities. He did not see any of her discharges, but they were said to have been watery. He judged it to be a case of sporadic cholera. He gave morphia, gr. ss, hypodermically, which checked the vomiting and purging immediately. Called one hour later and found her entirely at ease. In the evening all unpleasant symptoms had disappeared.

Dr. Murphy said the morning before an Irish woman was admitted to the hospital. From the vomiting, purging, character of stool, paleness, huskiness of voice, feeble pulse, clammy surface, etc., he would not have hesitated to call it a case of cholera, if that disease had been prevailing. He ordered bismuth, grs. x., calomel, gr. $\frac{1}{4}$, morphia, grs. $\frac{1}{4}$. Recovery followed, but a noticeable feature in the case was the slowness with which the capillary circulation was re-established.

Dr. Murphy brought to the attention of the Society a very important measure for the relief of tympanitis, suggested by the President of the Society in a consultation in a case where a distressing tympanitis followed child-birth. Water of a temperature of 110° was injected into the rectum in quantities of four to six oz.; this was followed by the discharge of a large quantity of gas. Brandy and carbonate of ammonia had been given, but he attributed the relief to the hot water injections. He thought the tympanitis in this case was due to the ingestion of too large quantities of beef tea—decomposition instead of digestion taking place.

Dr. Comegys thought the hot water acted by relaxing the spasm of the sphincter. Spasmodic action of sphincters may be due to reflex irritation. Retention of urine may sometimes be explained in that way, and the application of hot water in such cases is frequently successful in relieving the spasm. In *Dr. Murphy's* patient the cause of irritation was the presence of gas.

Dr. Kearney could understand that spasm might be relaxed by warm applications, but is that the condition in tympanitic conditions of abdomen? He thought there was rather a condition of paralysis of muscular coat. He thought spasmodic action of the sphincter ani would not be sufficient to cause such an accumulation of gas, if it were the introduction of a tube through the sphincter, would be sufficient to give relief.

Dr. Muckenzie agreed with *Dr. Kearney* that tympanitis is not due to spasm of the sphincter ani. He had, the day before, made a post-mortem examination of a case in which there was great tympanitis. This he believed to be due to paralysis of the muscular coat. The sympathetic and spinal systems were obtunded by the poison of the disease, in this case typhoid fever. The relaxing influence of the warm water on the sphincter was not sufficient to account for the relief. Water, at 110° , is a stimulant to the muscular coat of the bowel, just as turpentine is a stimulant. That, he thought, was a more satisfactory explanation.

Dr. Comegys said his idea was that owing to distention, the muscular coat had lost its power to expel the gas. A slight spasm would, in such a case, be sufficient to cause distention.

Dr. Comegys asked *Dr. Kearney*, Health Officer, what were the prevailing diseases.

Dr. Kearney said small-pox was still prevailing, though the number of cases are falling off some. In the last few days several deaths from cholera infantum had been reported.

Dr. Comegys asked how long the disease lasted in the fatal cases of cholera infantum.

Dr. Kearney said the period was very variable, from a few hours to several days.

Dr. Culbertson said that about ten days ago he was called to see a lady just delivered of a living child at full term. He found her flooding; she had fainted, was in a collapsed condition. Blood was still flowing freely. In her right side he found a fibroid tumor, about three inches in diameter. The uterus having contracted, he plugged the vagina, gave her some whisky, and ordered some fluid ext. ergot, which was given in doses of ʒss. every half hour, until she had taken ʒij.

Two days later she had a chill, pain in the region of the tumor, pulse 140. Quinæ grs. x., pulv. doveri grs. x. were given, the next day quinine grs. x., pulv. doveri grs. iv., given three times, since which she has been improving.

The case was interesting from the presence of the fibroid tumor.

Dr. Mckenzie said there was in the Hospital Museum and interesting specimen, showing an intra-uterine fibroid polypos, and an interstitial fibroid tumor.

Dr. Cilley reported a case of precocious menstruation—a girl five years old. In March she complained of pain in her abdomen. This passed off in a day or two. Four weeks later she again had the same character of pain, followed by the menstrual discharge, which has recurred every four weeks since.

Dr. Cilley also reported a case of a woman who had been under his care recently, whose bowels were moved only once in a month. There was no abdominal distention.

Dr. Culbertson said that three years ago he had a woman under his charge who was dyspeptic. She said her bowels were moved about every three weeks. There was then some diarrhœa which lasted for a day or two, when the bowels would again become quiet for about three weeks. Some malaise and a foetid breath preceded the discharge for a day or two. Quinine, ext. nux vomica and iron, with regularity in her habits, rendered her quite regular in six or eight months.

Dr. Murphy said a woman in the hospital for five months had no stool except when she took an active cathartic. She was discharged from the ward, but employed in the hospital, since which she has been very regular. Some persons have greater control over their bowels than others. The frequency of evacuations is a mat-

ter of personal regulation. Some persons go a week without a stool, while others may have one daily, and yet be constipated.

Dr. Heighway said a case was reported to the Obstetric Section of the American Medical Association of a child $2\frac{1}{2}$ years old, which has menstruated regularly since it was two months old. Its mammæ were fully developed, and pudenda covered with hairs. The vagina large.

The Society then adjourned to the second Tuesday in September.

Selections.

Removal of the Ileo-cæcal Valve with a Portion of the Illum.

LETTER FROM FLORENCE.

MESSRS. EDITORS,—One marked difference between the human and brute creation is the strikingly greater tenacity of life possessed by the latter. The lower one arrives in the scale, the greater are the powers of resistance and reproduction; and this depends not only upon their organization as animals, but is also governed to a great extent by their habits and surroundings; there is greater vitality, greater power of endurance, in the wild than in the domesticated animal. This is even more strongly marked among the different members of the human race: the simple life and habits of the Hindoo free from strain or excitement, enable him to support surgical operations and accidents under which the American or European, with his artificial mode of existence, coupled with its wear and tear, would inevitably succumb. Certain conditions which in a primitive state of society are purely physiological become under the influence of modern civilization pathological, such, for instance, as pregnancy and parturition; among the lower orders, those living principally in the open air, without having contracted the habits and vices of large cities, pass through the periods of gestation and delivery not only without inconvenience or danger, but with a recovery so rapid as almost to defy belief. I was some years ago informed on indisputable authority, by one connected with a maternity hospital, that there was a class of women in and about Pisa who at certain seasons of the year passed a great part of their time in the woods, collecting acorns for their hogs and broken branches for winter fuel. These women, when in an advanced stage of pregnancy, about the period of their expected delivery, always sallied from home provided with tape and scissors. When the critical moments arrived, they performed on themselves the office of midwife, and returned to the domestic hearth with

their offspring enveloped in their aprons. Even in England it is a common thing to see women at the washing tub who three or four days before have added to the population. What would the dainty lady of fashion, the victim of nervous whims and flurries, with her smelling-bottle by day and her chloral by night, says to this? These are facts so well known and admitted that it would almost appear superfluous recapitulating them, were it not that the case which they are intended to introduce is so extraordinary, in fact unique in the annals of surgery, that it far eclipses the performance of the Pisan matrons; without further prelude I will proceed with my history.

N. N., native of Corsica, aged sixty, general appearance showing great emaciation; color of a dirty yellow, suggestive of malignant disease; has generally been healthy; have never to his knowledge suffered from any serious abdominal affection; no history of cancer in the family; has been ill a twelve-month, suffering from constipation and painful defæcation. Gradually he became conscious of some mechanical obstruction situate at the orifice of the rectum, and then of a protrusion, which sometimes he could himself replace, at other times was constrained to seek medical aid for its reposition. The constipation was temporarily relieved by purgatives, which produced discharges of scybala, blood, and mucus, followed by the appearance of a tumor after considerable straining; occasionally there was also oozing of a sero-mucous fluid. The more general opinion among his medical advisers was that it was a tumor proceeding from the walls of the rectum, probably of a cancerous character, The pain attending defæcation had been so severe that he could with difficulty be persuaded to take nourishment. An operation was proposed, but objected to, and he determined to proceed to Florence for further advice.

On the first examination a tumor was discovered blocking up the rectum, which the patient could generally protude, but which he failed to do on the present occasion. A dose of castor-oil was given, which effected this object; it was then discovered to be movable, showing that it was unconnected with the deeper structures of the rectum. The finger could pass freely round its circumference, where there was space for the escape of the fæces. The surface of the tumor was irregular, from the presence of vegetations, and no aperture of any kind was detected; it was considered to be a canceroid, and later a polypus. During a subsequent examination a portion was detached from the surface, and on submitting it to the microscope it was ascertained or rather held to be a papilloma, but the surgeon was unconvinced, and adhered to his first impression that it was a polypus. The general appearance of the patient was anæmic, from loss of blood, suffering, and defective nourishment. After sundry consultations an operation was proposed as the only chance of salvation, and agreed to by the sufferer. A full dose of castor oil was administered, which produced a copious discharge of fæcal matter and complete protrusion of the tumor, The patient

was placed on an operating table. On applying a wire ligature, to prevent hæmorrhage, it was found that the point of origin of the polypus could not be reached, as the peduncle was evidently a long one. It was, however, applied as high up as practicable. The extreme ends of the metallic ligature were securely fixed to the handles of the instrument; the tumor was drawn down, and excised by the galvano-caustic wire at a short distance from the point of ligature. This apparently simple operation was followed by unusual result, namely, shock, with its concomitant symptoms. The patient was hurried to bed, and the surgeon was surprised to find that his wire ligatures had almost vanished, that the handle of the instrument alone prevented their disappearance into the cavity of the abdomen. The tumor was now examined, and it was soon discovered, to the general astonishment and consternation, that the tumor was *not* a canceroid, *not* a polypus, *not* a papilloma, but the whole of the ileo-cæcal valve, with a portion of the ileum, in a considerably hypertrophied state, measuring, in its invaginated, telescopic condition, ten centimetres. The wires were now enclosed in glass tubes, and the patient left in repose, with a prognosis which may easily be imagined. After fourteen hours evidences of strangulation manifested themselves, and it was determined to slacken the ligature, which was followed by a copious discharge of serous fluid, and a large quantity of fæcal matter, blood, and mucus. In a few hours there was a subsidence of all untoward symptoms. In a few days the bowels were opened naturally and regularly, which had not occurred for many months, and in a fortnight the patient announced and carried out his intention of returning to his native hills, where he now remains in perfect health.

It would be useless to speculate as to nature's mode of proceeding in the readjustment of this intestinal hiatus, but such are the facts. A well-known lecturer on anatomy and physiology in London used to say that the only use he could see in the appendix vermiformis was to catch cherry-stones, and that we should be much better without it; but he little thought a man could get on so satisfactorily without his ileo-cæcal valve and appendages. The preparation may be seen at the pathological museum of the Florence hospital. On some future occasion I will send you a history of the expulsion of one metre and thirty centimetres of small intestine, following intussusception, and the patient does not seem to miss it.

WILLIAM WILSON, M. D.

33 VIA SANTO SPIRITO, FLORENCE, May 28, 1876.

Boston Med. and Surg. Jour.

Biliousness.

With many persons biliousness is the very bane of their lives. To such the removal of this torment would make all the difference betwixt a life almost intolerable and an existence fairly bearable.

The depression of spirits which accompanies the physical condition is the chief source of the wretchedness induced, and with the removal of the malady follows an immediate relief to the mental condition. These bilious persons are usually in time permanently affected by the passing states to which they have been subjected, and they become habitually grave, and sometimes even morose. They exhibit little lightness of heart, and not much mirthfulness. Nevertheless they are often energetic and active-minded in their gloom.

The state known as biliousness is a very uncomfortable one for the person so afflicted, and yet very often it is due to their neglect of precautions which they themselves well know and recognise. Such people are well aware of the fact that exercise is antidotal to this state, and that sedentary habits further its development. A spare diet with active habits will produce decided amelioration; indulgence with quiescence will quickly induce it.

The production of this condition and its causal relationships are of no little interest, and are worth the tracing out. The mystery which has so long enshrouded the liver and its functions is fast being dispelled, and with its disappearance the rational therapeutics of biliary disorders are revealing themselves. A very safe refuge in time of trouble for the bewildered practitioner was that important viscus of unknown functions, the liver. By a studied shake of the head and the oracular pronunciation of the word "liver," the patient's mind was set at rest as to the diagnosis, and left free to speculate about the profundity of medical lore which lay behind this brief utterance. The blue pill and black draught, with accompaniments also attended by satisfactory results, gave evidence of the possession of much learning, and were sufficient to vindicate the diagnosis. As this depletory line of treatment was usually aided by a restricted diet, ere long the patient felt much relieved, and the average state of health was regained.

Biliousness is, indeed, the consequence of an assimilation of food in excess of the needs of the organism and of the oxidising power of the system. The liver is the organ which elaborates from the alimentary matters the materials required for the maintenance of the body. There is stored the glycogen which supplies the fuel of the system. This material is not merely formed from the saccharine elements, but is produced by the breaking up of the albuminoids which are not required for the repair of the tissues. These superfluous peptones are separated into glycogen and nitrogenised waste. Consequently, after a liberal meal there is much nitrogenised matter which is not required for tissue repair, and which is more or less completely broken up in the liver. If the oxidising processes be active and be aided by exertion, then this azotised waste is converted into uric acid and urea, and so is fairly excreted. If, on the other hand, the habits are sedentary, then the oxidation is very imperfect, and the nitrogenised matters remain in some of the earlier forms of their retrograde metamorphosis. Under such circumstances the patient becomes bilious.

In the breaking up of albuminoid bodies it would appear that the nitrogen and sulphur elements pass in different directions. The nitrogenised elements find their way out of the system chiefly by the kidneys; while the sulphur elements are contained in the biliary acids, and find their way out of the body by the intestinal canal. It is from the presence of the sulphur that the stools of the over-fed bilious individual possess their peculiarly offensive odour. It is to the splitting up of albuminoids in the liver that the relationship of biliousness to gout is due, and when the digestion has been disturbed by repletion it is common to find the urine laden with lithates, white or pink. The old practitioner who declared the liver to be concerned in such a state of affairs was perfectly right in his conclusion, however erroneous the method by which he arrived at it. When there is much indulgence in food and drink, and imperfect oxidation, there is an accumulation of waste matter in the system, which may take the direction of a bilious attack or any attack of gout.

The radical difference betwixt the two diseases is not very great, and chiefly depends upon the peculiarities of the individual. In both, there is imperfect oxidation of nitrogenised matter. In the first place there is excessive nutrition, and the respired oxygen is chiefly taken up by the hydro-carbonaceous matter it meets with in the system. The excess of other food interferes with the oxidation of the nitrogenised matters, and in this imperfectly oxidised condition they became a source of trouble. Where the kidneys are fairly active they are excreted as lithates in such quantity as to be found in considerable bulk in the urine, readily visible to the eye when the urine cools. When the kidneys are not very active then the symptoms of gout are not uncommonly superadded.

Biliousness being, then, a condition of excessive repletion, it is obvious that the lines of treatment to be pursued are of two kinds. In the first place, it becomes necessary to reduce the amount of food taken, and simple bland articles of diet are indicated. Above all things albuminoids, furnishing sulphur and nitrogen, are to be avoided. By such means, the production of these undesirable waste matters will be cut down. Then comes the removal of the waste products already in the system. For this end, purgatives containing some mercurial are to be preferred. By their means the spare bile is swept along the intestinal canal, instead of being re-absorbed, and so relief is obtained. The advantage of combining a mercurial with ordinary purgatives in treating such conditions is familiar to all practitioners. Even free purgation will commonly fail to give relief, if the purgatives have not contained mercury. The non-mercurial purgation would seem to be set up too low down in the intestinal canal to sweep away the superfluous bile, and so to prevent its re-absorption. The addition of the mercurial makes all the difference.

In the choice of the purgatives, too, the existence of the nitrogenised waste must not be overlooked, and it is always well to resort to alkaline purgatives, and especially to those which contain

potash. By the use of the latter agents, the lithates are readily removed, and, after their use, the urine is usually found high-coloured, and of high specific gravity. The favourite mineral waters contain alkaline salts, and thus are specially suited for the bilious and the gouty. By taking alkaline purgatives, combined with a mercurial pill occasionally, bilious subjects are very much relieved. Especially is this the case with those persons whom practical starvation will not relieve entirely from their biliary troubles. Restriction in their food will not altogether prevent their attacks, and often they become much reduced without being relieved. Here the free use of alkaline purgatives, in combination with a vegetable bitter, will enable them to take more food, and digest it, too, without inconvenience; and they will, as a consequence thereof, enjoy better general health than when they essay to starve themselves below the point of biliousness. Such, however, are persons in whom there exists a strong tendency to biliary disturbance; in others—and these form the greater portion—the easiest plan is to follow Nature's indications—loss of appetite with natural diarrhœa.—*Medical Examiner*.

A New Method of Treating Diseases of the Nose.

VIENNA, May 31st.

The very great success which has attended the treatment of various diseases of the nose by means of the so-called *gelatine-bougies*, recently introduced at the Laryngoscopic Clinic in Vienna, has induced me to give your readers a short account of this method, especially as I have never heard of its being used elsewhere in similar cases.

A Vienna chemist, Mr. F. A. Grohs, had attempted for many years to replace the fat in suppositories, etc., by some substance which would not melt so quickly between the fingers, and which could be moulded and introduced with greater facility. He was for a long time unsuccessful, but at length he found in the *gelatine* extracted from the bones of calves a substance suitable to his purpose. This substance is flexible and elastic, and yet not too soft; it can be mixed with various medicinal agents and run into moulds. Suppositories of this material have for many years been used by Professors Braun and Sigmund with great success in cases of uterine catarrh and gonorrhœa. The *gelatine* may be medicated with astringents, as alum, tannin, rhatany, and salts of lead, bismuth, zinc and iron, with anodynes as morphia, belladonna, and even chloral hydrate. Mercury and iodine can also be applied in this way, but permanganate of potash is inadmissible, as it destroys the

gelatine. The suppositories made with this substance are elastic, like india-rubber, they do not melt easily between the fingers, and they are much cheaper than those made with cocoa-butter.

It is only quite recently, however, that bougies of this material have been employed in cases of nasal disease. Their use was first introduced at the Laryngoscopic Clinic, and it has been attended with great success. The bougies used resemble those already employed in urethral diseases; they are something over three inches in length, and from one-eighth to one-fourth of an inch in diameter, and are pointed at one end, so as to be more easily introduced. The drugs most commonly applied in this way are the astringents, as alum, sulphate of copper, rhatany, and carbolic acid. Hitherto the treatment of nasal disease has been confined to injections of tepid water and solutions of different drugs, and applications of caustics to the nasal mucous membrane by means of a *porte-caustique*, the latter of which methods causes intense pain when the mucous membrane is swollen and the meatus is narrow. Further, cauterization can not be employed sufficiently often. The introduction of the nasal bougie on the contrary is not at all painful, the elastic body adapts itself to every irregularity in the nasal cavity, passes very easily through the narrowest parts of the meatus, and dilates them by a gentle pressure.

These bougies have been used in cases of coryza, ozæna, and, with great success, in cases of extensive swelling of the nasal mucous membrane and of the turbinated bones. If there is total obstruction of the meatus and air can not be drawn through the nostril, the introduction of the first bougie often effects a marvellous improvement. In cases of ozæna sulphate of copper and carbolic acid are the most useful agents, but where there is extensive swelling and relaxation of the mucous membrane the tincture of rhatany is to be recommended. Sulphate of zinc is not much used, for according to Störk's experiments, solutions of this drug, even when only injected into the nose, destroy the power of smell.

There is no difficulty in introducing the bougie. It is advisable to give it a rotatory as well as an onward motion during introduction. Even in the most obstructed meatus it is possible to introduce the bougie completely, and in any direction. Afterward the nostril is plugged with lint to prevent the liquefied gelatine from escaping by any other orifice than the posterior nares. When there is much secretion present the bougie may liquify in three-quarters of an hour, but it usually takes three hours. It causes no unpleasant sensation while in the nose, and it is useful not only in applying medicaments to the mucous membrane, but in keeping the meatus dilated. Several who have tried the bougies speak very favourably of them, and a collection of the gelatine suppositories recently sent to the Berlin Surgical Conference was much praised.—*Medical Examiner*.

The Physiological Pathology of the Brain.

The subject of Localization of Function and Disease in the Brain has attracted considerable attention since the discovery of Fritsch and Hitzig. The admirable lectures of Professor Charcot at the School of Medicine of Paris, and the researches of Dr. Brown-Séquard, the result of which have been communicated by him to several medical audiences in Boston and in Paris, have clearly shown the practical aspect of the study. Knowing that Dr. Brown-Séquard intends to deliver lectures in several parts of England this summer on the subjects, it may be well to give a summary of the new views of that physiologist.

According to the beliefs universally entertained, the left side of the brain is the centre for volition and movement of the right side of the body, and, *vice versa*, the right side of the brain for the left side of the body. It is also admitted that one side of the brain contains the centres for the organs of sense of the other side, with the exception that (according to Wollaston's views) the centre for the outer half of the right retina, and that for the inner half of the left retina, are on the right side, and *vice versa* for the other halves of the retinae. Dr. Brown-Séquard believes that all those fundamental views are absolutely wrong. He has collected a large number of facts which prove, according to him, that each half of the brain has two sets of conductors, one going to the right half of the body, and the other to the left half. He believes that it is so, not only as regards voluntary impulses and common sensations, but also for the various senses. In other words, he contends that each half of the brain is perfectly sufficient for all the actions of muscles, of sensitive nerves, and of the organs of sense, on the two sides of the body. Of course, he is fully aware that every day physicians have under their eyes facts which seem to contradict this view. It is a matter of most frequent observation in the practice of a physician to see a patient who has lost the power of motion and sensibility in one half of the body from disease in the opposite half of the brain. He argues that the question is not whether such a fact contradicts or not his view, but whether that fact is or is not to be explained by admitting that the paralysis and anæsthesia are dependent upon the destruction of a centre or of the conductors for voluntary movements and sensation. There lies the vital point in the new view of Dr. Brown-Séquard. He has accumulated facts which he believes negative the theory that paralysis, anæsthesia, amaurosis, aphasia, and other effects of brain disease depends on a loss of function of either the centres or conductors specially employed in voluntary movements, perception of sensations, power of expressing ideas by speech. etc. Dr. Brown-Séquard endeavoured to prove, for the first time, in his Gulstonian Lectures delivered at the college of Physicians in 1861, that a lesion of one limited part of the brain may produce any symptom; and that, on the other hand, the same symptom may

appear, no matter where the seat of the lesion may be. Facts of these two kinds are alone sufficient to show that we are not to look upon symptoms as manifestations of the putting in play of a property, or as direct results of the loss of function of the part diseased. But there are many other arguments brought forward by Dr. Brown-Séguard to establish his proposition that the origin of brain symptoms is not what it is believed to be.

If we take, for instance, the history of paralysis, we find—1. That a lesion in any part of the brain can produce paralysis either on the same side or on the opposite side of the body.* 2. That paralysis can often appear and disappear although the lesion causing is a permanent one. 3. That there is no relation whatever in many cases between the extent of a lesion and the degree and extent of a paralysis. 4. That a paralysis may be brought on suddenly, whereas the lesion causing it has existed for some time already, or appear gradually and slowly, although the lesion is a sudden one. 5. That a paralysis can appear on one side, then on the other side, although the lesion remains in one half of the brain. 6. That a paralysis can appear in the arm on one side and in the leg on the other side, from a lesion on one side of the brain. 7. That paralysis can strike these limbs from a lesion in one side of the brain. 8. That paralysis can strike the two lower limbs or the two upper limbs alone from a lesion in one half of the brain. 9. That paralysis can appear in one half of the body from a lesion involving equally the two sides of the brain along the middle line. 10. That paralysis may appear in a few muscles only, either in the face, or the trunk, or the limbs, from a disease above the pons Varolii. 11. That a paralysis of the sphincters of the bladder, or of the anus, may result from disease in any part of the brain. 12. That the so called altern paralysis may appear from a disease above the pons Varolii. 13. That hemiplegia, when complete, is almost always accompanied by some paralysis on the other side, although the producing disease exists only in one half of the brain.

If we examine what relates to convulsions, we find, according to Dr. Brown-Séguard, that what is seen for paralysis is seen also for spasmodic movements. We will point out here this interesting fact, that a lesion in the right side of the brain can produce convulsions indifferently on the right or the left side of the body, while a lesion in the left side of the brain, if it does produce unilateral convulsions, will cause them to appear almost always on the right side.

As regards vision, facts show that a disease in one half of the brain can produce hemiopia either in both eyes or one, and in the corresponding or the opposite halves of the retinæ, or a complete amaurosis of either of the two eyes, or of both together.

As regards other symptoms, such as anæsthesia, aphasia, loss of consciousness, etc., Dr. Brown-Séguard endeavours to show that they also may arise from lesions in almost any part of the brain.

* See Dr. Brown-Séguard's Lecture in the *Lancet*, January, 1876.

Considering the immense variety of phenomena originating from a lesion in one and the same part of the brain, and in presence of facts showing that any limited part of the brain can be destroyed without loss of function, Dr. Brown-Séquard has come to the conclusion that symptoms take rise, not from the loss of action of the diseased part, but from an influence exerted on distant parts of the nervous system by a lesion limited to a part of the brain. He considers the appearance of symptoms as depending on essentially variable conditions of excitability of the nervous tissue round diseased parts. He is convinced that it is impossible to sustain the old theory called the clavier theory, and that we must, on the contrary, admit that a few fibres alone are sufficient to establish full communication between the cells of the spinal cord and the cells of the brain. He holds that there are two sets of conductors, one decussating and the other direct, between each half of the brain and the spinal cord. He maintains that the seat of each special function of the brain, instead of being, as admitted, a cluster of cells localized in a small part of the brain, is disseminated, so that the cells belonging to each are spread over a considerable extent, if not the whole extent, of the brain. He states that there is no more difficulty in admitting that cells that are at a distance of many centimetres one from the other can communicate or act together, than to admit that they can have intercourse when they are at a distance of half a millimetre or less from each other. He believes that symptoms of loss power, such as paralysis, anæsthesia, amaurosis, aphasia, etc., are due altogether to an inhibitory influence exerted on cells, some near, other far or very far from the place of the lesion. For him, whether amaurosis affects both eyes from a lesion of the spinal cord, or of a sensitive nerve, or of the brain, it is owing in all these cases to an inhibitory action on visual cells, either in the two sides of the brain, or in the retina, or in both parts. Again, if aphasia appears when there is a disease in any part of the left side of the brain, either the third frontal convolution, or the insula, or any other, it is owing to an inhibitory influence exerted on cells serving to the expression of ideas by speech, wherever these cells are located. We repeat that paralysis and anæsthesia also appear, by a similar mechanism of inhibition, wherever the disease producing these symptoms may exist.

In respect to the group of symptoms consisting in a morbid activity in cells of the brain, what takes place on the occurrence of those symptoms is a setting in action of normal properties by an exciting cause. So that either here, or as regards the phenomena of cessation of an activity, the same cause primarily exists—an irritation.

Dr. Brown-Séquard has no doubt that the old theories must be given up. He is sanguine as regards his power of demonstrating that a great part of his new views is already established by facts, but he acknowledges that some portion requires additional corroboration. He hopes that others will help him in the demonstration

of the correctness of his views, or show him in what he is mistaken, and his object in delivering his lectures in England is precisely to have that help or that criticism.—*Lancet*, June 3, 1876.

*A Clinical Lecture on the Immediate Application of the Plastic Dressing in Fractures of the Lower Extremity.**

By DAVID W. YANDELL, M. D.

GENTLEMEN: The other day, after I had dressed a fractured leg in your presence, a member of the class asked me, "*What was the best time to put up such fractures?*" My answer, you may remember, was, "*The earliest possible moment after the bone was broken. The sooner the better.*" And now after weighing my experience in such cases as carefully as I am capable of doing, I wish to add this to my reply on that occasion: *Dress the fracture, if you can, on the spot.* Do not, if it can be avoided, have the patient moved a single foot from where he received the injury; for he can undergo no movement of the limb without augmenting his pain and increasing his risks.

A little while back a merchant of this city got a simple fracture of the bones of the leg. He was put in a spring wagon, and started to his house. On the way the upper end of the tibia was thrust through the skin, and what, when he left his store was a simple subcutaneous wound, had, before he reached his residence, been made an open wound and converted into a compound fracture. The second accident was worse than the first. I saw, more than a score of times, during the late war, soldiers who were started to the rear with simple fractures of the lower extremities, who, when they reached the hospitals, had compound fractures. The jolting inseparable from the best managed transportation on wheels almost certainly gives rise to pain, which means, in almost every instance, additional injury to the soft parts, and, as I have just remarked, it is sometimes even sufficient to change a simple into a compound fracture. Carrying patients with broken legs on litters on men's shoulders is safer than on wheels, but this can not conveniently be done except for short distances; and no matter how carefully it may be executed, it is nevertheless obnoxious in some degree to the objections I have just named. And this, too, though the surgeon may himself superintend the transfer, and before undertaking it encase the injured limb in a temporary, or what has come to be known as a field dressing; for this dressing, however well applied, is after all but a make-shift—it gives pain

* Phonographically reported.

and disturbs the fragments of bone while it is being put on, and does the same when it is taken off.

Some years ago when my lamented colleague Professor Bayless, was lecturing one day on the subject of fractures, I was called to see a negro man with a broken thigh. I remembered it was the hour for my friend's lecture. The patient who wished to go to hospital, was only a few blocks from the University. I thought the case would be an agreeable surprise to Dr. Bayless, and would serve better than diagrams or words to illustrate the subject of his lecture, and so after adjusting the fragments and applying a good field dressing to the limb, I placed the patient on a stretcher, and this on the shoulders of four stout men, and putting these under way, I accompanied the cortege to the lecture room. When we took up our march, I must believe the broken bone was well in place; but when we reached our destination, and removed the dressing, the extremities of the fractured femur were frightfully displaced, and the sufferings of the patient extreme. A part of both these features was due to the motion which is well nigh inseparably from every attempt to transfer persons with broken legs from one spot to another, and a part to the violent spasmodic action of the injured muscles which, primarily lacerated, were still further vexed by being still further disturbed.

So my injunction to you to-day is that if you encounter a broken leg when the injury done is at the minimum, when in dressing it you would give least pain, and have it most in your power to avert inflammation and all the evils which journey in its train, you must do so on the spot where the accident has occurred, and as soon afterward as you can get to it. Every inch that a fractured leg is moved is hurtful; every moment lost before putting it up is injurious.

A man in the employ of the gas company here sustained a fracture in the lower third of the leg, within a few feet of my office door. In less than forty minutes after, the plastic dressing was drying on the broken limb. Two hours later the patient was removed without the least suffering to his home, a mile away, and had he been accustomed to their use might have walked on crutches the next morning.

It will oftentimes happen, however, that the opportunity to act with the promptness I have advised is not afforded you. You may not see the fracture until after swelling has set in, and the limb has grown painful and red and hot. What then? Why, do just this: Put the fracture up as soon as you can get your dressing ready. Go to work then and there, and encase the limb in some form of fixed apparatus. It may be Paris plaster, or eggs and flour, or glue and zinc, or liquid glass, or shoemaker's paste; only let it be something plastic, and apply it instantly.

Those of you who have been following these lectures longest can not recall a single instance in which you ever saw me postpone dressing a fractured leg or thigh because of swelling in the parts.

On the contrary, I have unvaryingly inculcated that swelling and pain are to be regarded as so many additional reasons for fixing the limb—for rendering it immovable—for placing the fragments so that neither the movements of the patient nor spasms of the muscles can disturb them. Pain, as Mr. Hilton in his lectures on that subject has so well expressed it, is a monitor—the monitor, as he puts it; and here it clearly seems placed to warn the surgeon against further delay in fixing the limb, and so fixing it that displacement can by no possibility again occur. Nor is swelling to be regarded as much the inferior of pain itself as a monitor. The two speak the same language. If you are truly wise, you will heed alike the voice of both; their admonitions are the same—they are calls for rest; and I beg you to believe that the more quickly and the more perfectly you secure this, the more rapidly and the more completely will they quit the broken limb. Oftentimes the injury done to the soft parts by the ends of the bones being suddenly and violently displaced by muscular action, or by change in the position of the patient, gives rise to some of the greatest dangers which occur in fractures. Hence, the sooner you adjust the fragments, and the more securely you provide against their subsequent displacement, the better you will have treated the case. Let neither pain nor swelling deter you from dressing the limb at once. If you see the fracture first at night, I pray you wait not till morning to put it up. Don't trust to sand-bags, or pillows, or splints, or this or that other device, and finally take your leave, saying you will call in the morning. A sight of mischief may occur between midnight and sunrise.

Some years ago a pilot jumped from the hurricane deck of a burning steamboat at the wharf at St. Louis, on to the boiler deck of a boat lying alongside, and sustained a fracture of both bones of the leg. The limb was well put up in splints, and the patient brought by rail to his home in this city. Forty-eight hours after the accident, when I first saw him, the limb was much swollen and very painful. I applied the plastic dressing at once, and had the satisfaction, not only of relieving all suffering immediately, but also of saving a man of very feeble constitution from the long confinement inseparable from any other mode of treatment.

An old gentleman fell, one Tuesday, and broke the two bones of the right leg about their middle. A medical man dressed the parts in the usual way. Thirty-six hours after I found the limb hot, painful, and much swollen. Did I wait for these conditions to abate? Not a bit of it. I ripped up the wrappings in which the leg had been enveloped and put on the final and only dressing which is required in such cases. The next day the patient sat up, and on the following Sunday he went on crutches, with his foot in a sling, two hundred yards to church.

A lady trod on a bit of orange peel, fell and broke her femur in its upper fourth. My friend, Professor Bayless, who, though he reposed great trust in the plaitic apparatus, preferred waiting the

conventional fortnight for the swelling, and so forth, to subside, applied the long splint, and made the orthodox extension and counter-extension enjoined in such cases. The limb swelled enormously, and the pain was extreme. At the end of three days of very great suffering, I saw the case with my colleague, and applied the plaistic dressing while the patient was under chloroform. There was no more pain after that, and in a week the lady could, when assisted, get on crutches and move about her room.

From that day, my lamented predecessor became a convert to the immediate application of the fixed apparatus, and among the last services it was my privilege to render him, when his failing health obliged him to abandon such work as called for much physical exertion, was putting up a broken thigh in one of his patients immediately after the accident happened. In that case there was no swelling; none had had time to occur, and the early application of the dressing had most certainly prevented swelling. In proof of this I need only refer you to my own experience in its use, and state that in all the cases in which I have applied it *I have never had occasion to remove it on account of swelling in a single one.* Many times when I have applied it to limbs already swollen, I have been obliged afterward to open it and overlap the edges, or trim them down, in order to adapt the bandage to the shrunken condition of the parts. Nor is this my own observation alone. I may fairly say that it includes the experience of two surgeons very favorably known to you—Prof. Cowling and Dr. Roberts, both of whom, former pupils and chiefs of this clinic, are now colleagues, and who, as I believe, have never dressed any fracture of either the leg or thigh by any other than the fixed apparatus. These gentlemen will tell you, as I have done, that when the plastic dressing is applied to a fracture before swelling occurs, none will occur; and that when it is applied after swelling has taken place, the swelling will begin at once to abate and soon disappear altogether.

Nor do these remarks apply alone to simple fractures of the lower extremity. They are equally true of compound fractures in this situation.

A boy, eleven years old, got a compound, comminuted fracture of the left tibia, just below the tubercle. The laceration of the soft parts was considerable. I picked out with my fingers a number of loose fragments of bone, brought the edges of the wound together, and three hours after the accident put the limb in the immovable apparatus. I then cut out a space sufficient to dress and watch the wound. In less than a week the lad went in a wagon, over a rough road, nine miles into the country. In nine weeks he walked into my office with a firm smart step, and without the slightest shortening.

Three years ago, while Professor Cowling was serving his term at the hospital, Pat Stanton, whom you occasionally see at this clinic, got an extensive compound, comminuted fracture of the

right leg. The contusion and laceration of the soft parts were simply frightful. The accident happened in this wise, and I mention it in order that you may the better appreciate the real magnitude of the injury. Stanton and a fellow laborer were engaged in lowering a lot of whisky from the street into a very deep cellar. Stanton's post was in the cellar. By some mismanagement one of the barrels rolled off the ways on which it had been placed, and fell a distance of twelve or eighteen feet on to Stanton's leg. Now a barrel of whisky, taken at stated periods, is one thing; but taken on a sudden and on one's leg, is another and a very different thing. Stanton was removed to the hospital, where he was soon seen by Dr. Cowling; the internes, in the meantime, having decided that it was clearly a case for amputation. I was sent for, and when, after consultation, it was decided to attempt to save the leg, Stanton drew me near him, and in a feeble voice, for he was still suffering from shock, said: "Doctor, had you told me my leg had to come off, I should have asked you to put a pistol ball through my head, and let me go at once." The plastic dressing was used instead of either the knife or the pistol, and you may now see Stanton almost any day earning his living on two good legs as a street cleaner. I hope you will not encounter, indeed, it would be difficult to conceive of a more unpromising case than Stanton's or one which put the fixed apparatus to a severer test. I am convinced that no other dressing could have secured the same happy result; and even this would, I believe, have failed, had its application been delayed for the ten or twelve days advised by some surgeons.

In 1870, when I had six years' less experience than I now have in the use of this plastic dressing, and when among surgeons generally there was less positive knowledge of the inestimable advantages of its immediate application, I stated* that if the bandages were cut throughout their entire length, as soon as dry, and their edges subsequently brought together, either by additional strips or by loop-knots, the principle objection urged against this dressing, namely, that it may become too tight as the swelling augments, or too loose as the swelling subsides, would be obviated. This statement grew out of my respect for the opinions of my seniors, rather than out of the teachings of my own experience; for at that very time I was unable to recall a single instance where the dressing once applied, before swelling had occurred, that it afterward became necessary to remove it because of swelling. *A limb timely put up in the plastic apparatus will not swell.* That is my dictum to-day. Hence there will be no occasion to open the dressing in these cases. Where swelling already exists it may, on subsiding, leave the limb, as you have seen, so shrunken as to render it necessary to cut and refit the bandage; but it is in these cases and these alone.

* American Practitioner, July, 1870.

To conclude: What I wish to impress upon you to-day is, that the best time to dress these fractures is the first moment after they have been inflicted. Every moment of delay is hurtful. The best place is on the spot where they have occurred. Every inch the limb is moved is an injury; and, finally, no dressing is comparable to the fixed dressing.—*American Practitioner*.

Sulphate of Quinine as an Excitant of the Uterus.

In a contribution to *La Presse Médicale Belge* much testimony is brought forward in support of the power that sulphate of quinine possesses of awakening and exciting the action of the uterus. Dr. Paul reports two observations proving its efficacy for exciting the contractions of the fatigued uterus. Dr. Voghera says that quinine, given to some women who during pregnancy were attacked with neuralgia, or for other causes, provoked abortion; that given to some women at the full term of pregnancy, it brought on labor; and that, when these women experienced slight irregular pains, the sulphate of quinine rapidly caused the expulsion of the fetus. It likewise facilitates the expulsion of the placenta by exciting uterine contractions; and when in the puerperal state the lochia are suspended, a dose of quinine is sufficient to reestablish them. He likewise states that in some rare cases the prolonged use of quinine suppressed the lacteal secretion, and brought on the menstrual flux. Dr. Ombini Vincent relates two cases of difficult labor from inertia of the uterus, and two cases of metrorrhagia, that was overcome by quinine. Dr. Louis Aporti declares to have found in it a more prompt and energetic action than in ergot. Dr. Lois Carlo likewise congratulates himself on having substituted quinine for ergot, and asserts to have found in it a powerful medicine either to awaken suspended contractions, or to strengthen them where they were weakened. Dr. Bouqué recounted a very interesting observation of a case of metrorrhagia, rebellious to every other treatment than quinine. He admits that quinine is endowed with excito-motor powers over the vaso-motor nerves, and in this manner explains its hemostatic power in every case where contraction of the capillaries is insufficient or wanting. (The Doctor.)—*American Practitioner*.

Notes on the Pathology and Treatment of some Forms of Hysterical Diseases.—DUPUY.

The author thinks too much importance has been placed upon the dependence of hysteria upon a disordered condition of the female generative organs. After considering Charcot's

theory, that at least the hemiplegic form of hysteria is due to a lesion of the internal capsule, and the views of Seguin and Bastian, he goes on to state that he believes it to be due to a "vascular trouble of the nerve centres, and abnormal condition of the so-called sympathetic nerve." "The origin of the latter, according to classical authorities, is in the pons; but I believe it is all along the spinal cord and base of the brain, as shown by Vulpian lately, and as taught for now more than twenty years by Brown-Sequard. But, unlike the above-named eminent physiologists, I think it probable that the vasomotor nerves, instead of originating in the axis of the gray matter of the spinal cord and pons, penetrate into it, and instead of proceeding from those centres together with the other nerves as they come out, and as Bernard has tried to establish for the so-called cerebral nerves, they only join the nerves of motion and of common and special sensation at their exit from the cerebral and spinal mass, and at the point where they receive their sheathing from the pia mater. For the trigeminus nerve, at least, this point is beyond contest, both experimentally and anatomically. One of the first workers with the microscope in the field of anatomy of the nervous centres, Hanover, has as far back as 1844, most beautifully figured the fibres, cells and small ganglia on the tract, and chiefly on the ganglion of Gasser of the trigeminus. Moreover, Rainey, in a paper published in the *Transactions Med. Chirurg. Society of London*, 1844, states that the arachnoid is the centre from which arise the vascular nerves."

[*Med. Record.*

Chronic Inflammation of the Spinal Cord.

PROF. D. C LANGE, of Copenhagen.

The author first describes the normal anatomy of the spinal cord. Beginning with the statement that parenchymatous inflammation is not known, but that only chronic interstitial myelitis is seen, he describes chiefly the connective tissue of the cord, its distribution and relations. He first describes the gross appearances.

"1. Cases in which with the unaided eye no changes at all can be discovered in the cord; are very rare; yet there are frequently indeed, besides the easily recognized changes, other extensive and often significant pathological conditions, which

can be recognized only with the assistance of the microscope.

"2. Diffused greyish coloration of the white substance without sharply defined boundary, without change of consistence and without gelatinous translucency, is a sign of the presence of interstitial changes, which must always be received with greater precaution as similar changes are found without there having been during life any symptoms of disease of the spinal cord and without the discovery of any pathological changes with the microscope. It seems according to this, as if the medullary matter may sometimes take a greyish color without this having any pathological significance.

"3. The grey degeneration (sclerosis) of the spinal cord is distinguished from the simple gray coloration by a darker tint, the gelatinous translucent character and the sharply defined outline of the surrounding portion. Although there is then always a strong development of the interstitial tissue at the expense of the nerve fibres, yet it is not safe from that to conclude that there is a pathological unity of the disease. There are at least two different varieties of the gray degeneration, which especially clinically and in part histologically, must be distinguished—the secondary and the primary."

Secondary grey degeneration occurs in posterior and lateral columns, but according to L's experience never in the anterior columns.

"4. Increase of volume and induration of cord without marked change in color seem the most rare of the changes recognizable with the naked eye in interstitial myelitis. L. found this change only in one case, but in that there was no microscopic examination.

"5. On the other hand the most common microscopic change in chronic myelitis is softening, which may exist in the most varying degrees. It may implicate the entire thickness of the cord, or may extend longitudinally and be limited to a single portion; yet central softening is rare."

Changes in the membranes are usually also present. "According to L. these different microscopic forms all depend upon pathological changes in the interstitial tissue; hence changes occurring in the nervous tissue are most probably of a secondary nature."

The chief histological changes of the interstitial tissue in the white substance are (1.) simple hypertrophy of the interstitial tissue. The cells of the interstitial tissue being more prominent while the cell nucleus or the cell itself is enlarged with or without change of form. The increase of the connective tissue arises chiefly from the thickening of the cellular processes.

(2.) Cortical myelitis, or myelitis leading to sclerosis is found chiefly where there is primary grey degeneration visible to the unaided eye. The degeneration of nerve fibres caused by the increased connective tissue progresses centripetally in the shape of a wedge. There is a marked tendency to fine granular destruction of the affected tissue. (3.) Softening is a very common form of degeneration. The fibres of the reticulum are not continuously thickened, but there are scattered through the mass nuclei adhering to their sides; these nuclei are of irregular form and size.

The nerve fibres may be simply atrophied and finally disappear; the axis cylinder may be swollen; the medullary sheath may be irregularly swollen.

The changes in the grey substance are less easy to follow and are less satisfactorily described.—[*Schmidt's Jahrb. Bd.* 168 1875, p. 238. *Amer. Psychological Jour.*

Editorial.

The Department of Medicine and Surgery in the University of Michigan has since its organization, been an anomaly among Medical Colleges in the United States, being the only institution of the kind established and supported by a State. In the past the State authorities have deemed it wise on their part to sustain the institution largely by State taxation, and at the same time made the fees of students nominal in amount. This condition of affairs has never been regarded with complacency by rival colleges, that were obliged to look entirely to their patrons for sustentation. Nor do we think the better educated men of the profession have regarded the Ann Arbor institution with favor, but looked upon it as a cheap resort for men who desired to enter the profession without suitable qualifications, for clinical advantages are an absolute impossibility in a small town. Many also had an impression, that on account of its cheapness the place was generally resorted to by those who intended to practice quackery after their graduation. A consequence of all this is that when the State authorities

grafted on the University a Homeopathic Medical College, the dogs of war were unloosed, and we have a good sized unpleasantness on hand, accompanied by some shedding of—ink. Having read the various explanations set forth by both sides, we are led to the conclusion that the status of affairs is about as follows: That “the Homeopathic Medical College” is not a part of “The Department of Medicine and Surgery,” but “The Department of Medicine and Surgery” is a part of “The Homeopathic Medical College.” In other words the Homeopathic professors (only two in number) do not teach in nor have anything to do with the instruction of students attending the course given in “The Department of Medicine and Surgery,” nor do they examine or vote on the qualifications of those who come up for graduation in “The Department of Medicine and Surgery.” But the faculty of “The Department of Medicine and Surgery” does teach the students of “The Homeopathic Medical College” and do constitute a majority of the faculty or board of teachers in that institution, and do examine and certify to the qualifications of the students of “The Homeopathic Medical College” when they come up for graduation.

The Legislature of the State of Michigan have a perfect right to establish a Homeopathic Medical College and incorporate it as a branch of their University. And so they have an absolute right if they see proper to also establish a Physio-Medical Institute or a Spiritual and Astrological College in connection with that institution. Whatever the people will patronize with students and currency, can find shelter in the University campus.

Further the Regents can make it the duty of the professors to teach the students of more than one department or college in the university, that is what they have done and that is one cause of the unpleasantness that now exists. The faculty of the department of regular medicine are obliged to teach students who avowedly propose, to practice what the regular profession regard as quackery, and further to certify to their qualifications.

Then again, we have the great bread and butter question,

which really was the chief corner stone on which rested the prosperity of "The Department of Medicine and Surgery" in the University of Michigan. We are fain to believe that to be one of the causes of cramp that exists in the bowels of the University at this time. The professors apple pie and ginger-bread comes from the State through the Board of Regents, and not from ye poor students or indirectly from the profession at large. And in these latter days we are not greatly surprised that the professors are able to read their title clear to apple pies and ginger-bread in that light. Besides they are relieved from the responsibility of signing any one's diploma, and if men will go and practice a snare and a delusion, they can not help it.

The faculties of rival Medical Colleges never have truly loved the Ann Arbor institution, as it always lessened their quota of apple pies and ginger-bread. The profession at large did not truly love "The Department of Medicine and Surgery in the University of Michigan," as they believed it was the mother of quacks, who are also supposed to subsist on bread and butter, and of a large number of poorly qualified regulars, who must have something besides a combination of oxygen and nitrogen to munch on.

The foundations of "The Department of Medicine and Surgery in Michigan University" were laid in bread and butter. Its chief corner stone was bread and butter, the superstructure was bread and butter, in fact it was roofed all over with bread and butter, and without bread and butter was not anything made or done about "The Department of Medicine and Surgery in the University of Michigan," and great was the fame thereof.

The winds have come and whispered through its crevices, and mutterings as of a storm have now and then been heard, yet at this writing the great institution founded and built on bread and butter still stands. The query is will it weather the gale that is threatening?

If it shall be found that bread and butter is the best possible material out of which to build a Medical College let the whole medical profession join together, and as one immense choir, sing praises of joy and gladness over the victory of the Alma

Mater that is founded on and built of bread and butter.

We are in receipt of the following:

UNIVERSITY OF MICHIGAN, ANN ARBOR, July 12, 1876.

Dear Sir:—The subjoined statement is respectfully submitted for your information; The Faculty of the Rush Medical College, of Chicago, in session of July 5th, 1876, enacted the following resolution:

Resolved, That the time and attendance of students upon lectures of the Medical Department of the University of Michigan, up to and including the last regular session of that College, may be recognized as part of the requisites for graduation in this College; but such time and attendance shall not hereafter be accepted, so long as the teaching of Homeopathy in whole or in part, shall be included in the course of study in that institution.

The significance of this resolution depends entirely upon the interpretation given to the words "*in that institution.*" If by them is intended the old, regular school, which is clearly and alone referred to in the first clause, then the resolution is of no effect, for the teaching of Homeopathy is not now and never has been "in whole or in part" included in the course of study in that institution. If the "Homeopathic Medical College" be referred to, then the Faculty of the Rush College have committed themselves to the inconsistent principle that because homeopathy is taught to the students of one college, they will therefore refuse to recognise the students of another college who have no connection or association with the first named, and whose education is as orthodox and regular as that obtained at any school in the country.

Much of the controversy that has grown out of the introduction of homeopathy in the University of Michigan is, without doubt, due to a simple misunderstanding of the situation. Our university consists of a number of distinct colleges, each created by seperative legislative enactment and each having its own faculty and organization. Two of these colleges are medical. One of them—the old, well known, regular school—is by statue entitled "*The Department of Medicine and Surgery.*" The statutory title of the other is "*The Homeopathic*

Medical College,"—created last year. Homeopathy is taught in the last named college, but in no way directly or indirectly is it included in the curriculum of the first. The peculiar wording of the resolution leads to the suspicion that possibly the authorities of Rush College have been misinformed in the premises, as we know certainly many others have been. At any rate if the above facts can be kept clearly in mind, they will contribute greatly to the ultimate and we trust amicable solution of the question at issue.

The leading medical colleges at the East, who have voted to receive our tickets and recognize our students, have drawn the distinction between the two schools of the University of Michigan by stating explicitly that this privilege is not extended to students who receive instruction in "irregular" medicine.

Very respectfully, your obedient servant,

E. S. DUNSTER, M. D.,

*Acting Dean, Department of Medicine and Surgery,
University of Michigan.*

Officers of the Toledo Medical Association for 1876.

<i>President,</i>	.	.	.	.	.	SAMUEL F. FORBES.
<i>Vice-President,</i>	.	.	.	.	.	W. C. CHAPMAN.
<i>Secretary,</i>	.	.	.	.	.	ALBERT W. FISHER.
<i>Corresponding Secretary,</i>	THOMAS WADDEL.
<i>Treasurer and Librarian,</i>	DR. H. M. SCHNETZLER.

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DRS. COLAMORE, KIRKLEY, BOND, THORN, AND JUNGBLUT.

EXAMINING COMMITTEE :

DRS. JONES, WADDEL, BODMAN, RIDENOUR AND NOLAN.

HONORARY MEMBERS :

Prof. G. W. JENKS, M. D., Detroit, Michigan ; Drs. HERMAN and SHOEMAKER, Napoleon, Ohio : E. A. ALLEN, M. D., OSCAR WHITE, M. D., and S. J. MILLS, M. D., of this city.

LIST OF MEMBERS TO JULY 15, 1876.

<i>Date of Admission.</i>	<i>Date of Admission.</i>
1856. William W. Jones,	1868. Max. C. Jungblut,
“ ‡ Weldo C. Daniels, .	1869. ‡ Lewis Barken,
“ † Charles H. Swain,	“ ‡ Jesse Snodgrass,
“ Symmes H. Bergen,	“ Wm. T. Ridenour,
“ Samuel F. Forbes,	“ James M. Waddick,
“ * William C. Scott,	“ Joel Green, Jr.
“ Valentine Braun,	1870. ‡ John A. Blanchard,
“ James L. Chase,	“ Calvin H. Reed,
“ || Jacob Clark,	“ ‡ Philo E. Jones,
“ * J. W. Hazlett,	“ William Cherry,
“ † Thomas P. Norris,	1871. ‡ Geo. O. Moore,
1857. ‡ L. G. Andrews,	“ ‡ Geo. L. Hoege,
“ † Onnelle N. Ellis,	“ Asa Bigelow,
1859. Jabez M. Cooke,	“ Thomas Cosgrove,
“ James G. Nolen,	“ * Spencer Dills,
“ || Jerome B. Trembley,	1872. ‡ John W. Southworth,
“ * D. L. Briggs,	“ James A. Duncan,
“ * Albert Tyler,	“ James T. Lawless,
“ * B. V. Swerringer,	“ William M. Douglass,
1861. Samuel S. Thorn,	“ ‡ Zep Rouleau,
“ † Charles Cochran,	“ Augustus F. Hipp,
“ Geo. A. Collamore,	1873. Jonathan Priest.
1862. ‡ M. C. Plessner,	“ John M. Crafts,
1863. J. W. Bond,	“ ‡ Ivory S. Cole,
“ Lewis H. Bodman,	“ Frederick Jaeger,
“ David P. Chamberlin,	“ W. C. Chapman,
“ Albert W. Fisher,	“ Ernst Wuestefeld,
“ || Thomas J. Eaton,	1874. James Coldham,
1864. * Edwin G. Bradley,	“ A. J. Bostater,
1865. || Thomas M. Cook,	“ W. W. Cullison,
“ § D. B. Sturgeon,	“ G. Fenneberg,
1866. Samuel W. Skinner,	“ Thomas Waddel,
“ ‡ J. E. Woodbridge,	“ W. H. Parcels,
“ H. M. Schnetzler,	1875. H. H. Darst,
“ James F. Aris,	“ ‡ William L. Kimball,

1866.	Frederick Hohly,	1875.	M. C. Hoag,
"	Frank P. Wilson,	"	Samuel Downs,
"	† Richard Worth,	"	John H. Curry,
"	† Wm. H. Ralston,	"	F. A. Kitchen,
"	† Oscar J. Price,	1876.	H. D. Chamberlin,
1868.	Henry A. Root.	"	C. S. Chamberlin,
"	Cyrus A. Kirkley,	"	B. H. Hanks,
"	Joseph T. Woods,	"	Theodore A. Felch,
"	George W. Bowen,	"	H. D. Earl.

* (7) *Deceased.* † (2) *Retired from the Profession.* ‡ (19) *Removed from the County.* || (4) *Withdrawn from the Society.* § (1) *Expelled from the Society.*

International Medical Congress. Philadelphia, September 4-9, 1876.

The International Medical Congress will be formally opened at noon on Monday, the fourth day of September.

The sessions of the Congress and of its sections will be held in the University of Pennsylvania, Locust and Thirty-fourth streets.

The general meetings will be held daily, from 10 to 1 o'clock. The sections will meet at 2 o'clock.

Luncheon for Members of the Congress will be served daily in the University building from 1 to 2 o'clock.

On Wednesday evening, September 6th, Dr. J. J. Woodward, U. S. A., will address the Congress on the scientific work of the Surgeon General's Bureau.

The public dinner of the Congress will be given on Thursday evening, September 7th, at 7 o'clock.

The Registration book will be open daily from Thursday, August 31st, to Saturday, September 2d, inclusive, from 12 to 3 P. M., in the hall of the College of Physicians, north-east corner of Thirteenth and Locust street, and at the University of Pennsylvania on Monday, September the 4th, from 9 o'clock

12 M., and daily thereafter from 9 to 10 A. M. Credentials must in every case be presented.

Letters addressed to the members of the Congress, to the care of the College of Physicians, N. E. corner Locust and Thirteenth streets, Philadelphia, during the week of meeting will be delivered at the University of Pennsylvania.

The Secretaries of State and Territorial Medical Societies are requested to forward without delay to the Chairman of the Committee on Credentials, I. Minis Hays, M. D., 1607 Locust street, Philadelphia, lists of their duly accredited delegates to the Congress.

Delegates and visitors intending to attend the Congress are earnestly requested individually to notify immediately the same Committee.

This information is desired to facilitate registration, and to ensue proper accommodation for the Congress.

Members intending to participate in the public (subscription) dinner of the Congress will please notify the Secretary on the Committee on Entertainment, J. Ewing Mears, M. D., 1429 Walnut street, Philadelphia.

Gentlemen intending to make communications upon scientific subjects, or to participate in any of the debates, will please notify the Commission before the fifteenth of August.

The Riverside Press, Cambridge, July 20, 1876.

HURD AND HOUGHTON, New York, the Riverside Press, Cambridge, will shortly publish a little work on "The Anatomy of the Head," by Thomas Dwight, M. D., Professor of Anatomy in the Medical School of Maine. One of the most important features of the book will be six full-page lithographs of frozen sections of the head, which have been drawn with great care from the original specimens. This is a method of demonstration which has received but little attention as yet from English and American anatomists, and the book, while designed especially for students, will also be of value to the

general practitioner. The same Publishers announce the second volume of "Public Health," containing the most important papers presented at the meetings of the American Public Health Association in 1874 and 1875. It will be a handsome octavo volume of 550 pages.

Rush Medical College.

CHICAGO, July 5, 1876.

The following resolution, adopted to-day, by the Faculty of this College, contains an answer to questions relative to homœopathy sent to this institution by the Dean of the University of Michigan:

"*Resolved*, That the time and attendance of students upon lectures of the Medical Department of the University of Michigan, up to, and including, the last regular session of that College, may be recognized as part of the requisites for graduation in this College; but such time and attendance shall not hereafter be accepted so long as the teaching of homœopathy, in whole or in part, shall be included in the course of study at that institution."

J. H. ETHERIDGE, *Assistant Secretary.*

H. C. Wood, Jr., M. D., the newly elected Professor of Materia Medica in the Medical Department of the University of Pennsylvania, is undoubtedly *the* man for the place. The friends of reform in medical education take courage, regarding the appointment as an omen that the day is near at hand when this oldest of Medical Colleges in America, will fall into line with Harvard.

That is the plane to which all Medical Colleges must rise, if their friends desire them to be regarded as first class institutions of learning.

Whenever the subject of change from the old to the new and better plan comes up in the Penn. University Faculty, and come up it will, the voice and vote of Professor Wood will be on the side of reform.

The following circular explains itself:

NEW YORK, July, 1876.

DEAR SIR:—At an informal meeting of the undersigned, held in Philadelphia, at the rooms of the Section of Practical Medicine, of the American Medical Association, Wednesday, June 7th, 1876, after the election of a Chairman and Secretary, *pro tem.*, it was

Resolved To call upon such American Physicians as had evinced a special interest in Dermatology to unite in forming an American Dermatological Association;

Resolved, That the meeting for organization be held in the University of Pennsylvania, Philadelphia, on Wednesday, September 6th, 1876, at 6 P. M., or immediately after the close of the meeting of the Section of Dermatology and Syphilology, of the International Medical Congress, on that day.

It is sincerely desired that you will be present and aid in the organization.

Please signify your pleasure to the Secretary at the earliest opportunity, and oblige,

Very truly yours,

L. D. BULKLEY, Secretary, *pro tem.*,
1 East 33d St., New York.

EDWARD WIGGLESWORTH, Jr., Chairman,
Boston, Mass.

LOUIS A. DUHRING, Philadelphia, Pa.

LUNSFORD P. YANDELL, Jr., Louisville, Ky.

GEORGE HENRY FOX, New York.

J. E. ATKINSON, Baltimore, Md.

Reviews and Notices.

Preliminary Report of the Mortality Experience of The Mutual Life Insurance Company of New York. From 1843 to 1874. By G. S. WINSTON, M. D., and E. J. MARSH, M. D. of the Medical Department. Printed by order of the Board of Trustees.

In view of the fact that the business of life insurance is in its infancy in America, we are gratified with anything that promises to throw light on this important subject. This report gives a very

comprehensive view, including the family history, habits, occupation, &c., of the total number of deaths of the insured in this company from its organization to the end of 1873, that is 5,385 persons, of whom 5,224 were males, and 161 females.

The work is divided into two parts; the first part, contains 46 pages (small folio), with sixteen tables and colored diagrams; the second part contains the "Actuarial Statistics" covering sixteen pages, with about fifty additional pages of the actuary's tables and beautifully colored diagrams.

The tables show the causes of death, and the number of persons dying from each cause, also a table of individual years; and a consolidated table showing the causes of death, and the ages grouped in decennial periods. The tables are arranged chronologically in series of 1,000 cases. In remarking upon these tables the authors justly lament the carelessness of physicians in making out certificates of death, as well as the "unavoidable doubts" resulting from the inexactness of medical science—both of which causes so frequently render mortality statistics worthless. While the tables are apparently full and carefully made, the figures are too few to lead to useful results, as the authors admit.

After a careful examination of these tables, we confess to some disappointment, about the only point which the writers seem to make is that "age will be found one of the most, probably the most, important factor regulating the causes of mortality. In all the most important diseases, the number," we are assured "will be found to vary directly with the age." So far as these figures go, they tell the same tale that was long ago told by Drs. Fuller and Chambers, as well as other writers on the subject.

We regret that the writers of this "Report" did not tabulate the height, weight, and chest measurements of the decedents, and furnish such data relating to their family history, and personal peculiarities as would be of use to medical examiners in the selection of proper subjects for insurance. The mere statement of age, occupation, and especially the usual reply to the stated question as to the habits of the applicant being "good," "very good," "proper," &c., &c., is not sufficient, and, indeed, so far as the latter point is concerned in meaningless or fallacious. The facts relating to the habits and mode of life should not in any case, be disposed of in a simple word; the medical examiner should, if possible, state definitely and fully the business, moral and social status of an applicant, as well as facts bearing upon his uses of food and drinks. It is a well known fact in the history of life insurance companies, that it is very common to find men who, when their business prospects are becoming greatly endangered, seeking a policy of insurance on their lives, as a last or "forlorn hope" of saving something for their families, from a fortune wrecked by "fast living," "fast horses," and "fast women." Such subjects are in our opinion, and experience, undesirable and doubly objectionable for very obvious reasons.

A history of the "last years" of the life of the insured decedents would be of more value to a life insurance companies than volumes of the most carefully compiled tables, such as those embodied in the report under consideration. However, we do not wish to undervalue such "Reports," but on the contrary we think that if all life insurance companies doing business in the United States, were to publish similar reports the combined experience thus presented would be of incalculable value to the profession at large, as well as to those more directly interested in life insurance. We think that the report of Drs. Winston and Marsh is a valuable one, and shows a proper appreciation of the subject, and we would earnestly advise all other insurance companies to adopt the same course and give their several experiences fully. But, we would insist that the height, weight and chest measurements of insured decedents should form a part of all such reports.

Statistics, Medical and Anthropological of the Provost-Marshal-General's Bureau. Derived from Records of the Examination for Military Service in the Armies of the United States, during the late War of the Rebellion, of over a Million Recruits, Drafted Men, Substitutes, and Enrolled Men, Compiled under Direction of the Secretary of War. By J. H. BAXTER, M. D., Colonel and Chief Medical Purveyor United States Army, Late Chief Medical Officer of the Provost-Marshal-General's Bureau. In Two Volumes. Washington: Government Printing Office.

This is undoubtedly one of the most complete and valuable contributions ever made to the science of Vital Statistics, and as issued from the Government Press, is a work of which every American Physician should be proud. The voluminous contents represent the patient and intelligent labor of Surgeons, J. H. Baxter, J. O. Stanton, Robert Fletcher, and M. L. Baxter, Mr. J. J. Beardsley, acting as Clerk.

The introductory in Part 1, gives a comparative view of the instructions, issued by the United States Government and by the principle Governments of Europe for the guidance of Medical Officers in the examination of recruits, giving complete tables of the disqualifications for military service adopted by the United States and foreign powers. Very complete tables exhibit the symmetrical result of the actual and of the calculated observations in extensive records of stature and girth of chest, with comments, in which the following conclusions are arrived at:

1. There is a perfect form or type of man, and the tendency of the race is to attain this type.
2. The order of growth is regular toward this type.

3. The variations from this type follow a definite law, the law of accidental causes.

4. The line formed by these variations, when arranged in groups, receding on either side of their mean, is the curve well known to mathematicians as the binomial; it was first applied by Newton and Pascal to questions of astronomy and physics, but it is applicable to all the qualities of man which can be represented by numbers.

5. The more numerous the data obtained by actual measurement, supposing them to be made with reasonable care and without bias, the more nearly accurate is the mean result, and the more closely does it correspond with that obtained by calculation.

The above expression of opinion is followed by a most complete bibliography consulted, as relating to the history of Anthropometry.

The principal portion of part I, contains a nomenclature of diseases, defining those that exempt from military service, with a series of most valuable plates and maps designed to show the section of the United States, where the various diseases are most prevalent. There are also plates illustrating the relation of certain diseases to occupation.

Part III. Is made up of reports of Surgeons of Boards of Enrollment and other documents.

Vol. II. Is composed entirely of tables.

These volumes are most valuable to physicians and on the part of Dr. Baxter and his assistants evince great ability and careful analysis of an immense amount of material.

The Report is a Public Document and may be obtained through Members of Congress.

Lectures on Orthopedic Surgery and Diseases of the Joints. Delivered at Bellevue Hospital Medical College, during the Winter of 1874-1875. By LEWIS A. SAYRE, M. D., Professor of Orthopedic Surgery, Fractures and Dislocations and Clinical Surgery in Bellevue Hospital Medical College, New York, etc., etc. Illustrated by 274 Wood Engravings. New York: D. Appleton & Co. For sale by Robert Clarke & Co. Price \$5 00.

We are glad to welcome this work by Dr. Sayre, as it comes to the profession after the author has attained a world wide reputation in his specialty.

The lectures are well reported in the terse and forcible language used by the author in presence of the class. The first lecture is devoted to a graphic history of Orthopedic Surgery from the days of Hippocrates to the present time. Following which he takes up the subject of deformities, with their classification and etiology.

A most interesting account is given of the way in which the author first had his attention directed to congenital phymosis, and adherent prepuce as one of the causes of reflex muscular contractions, and of paralysis, relating a number of cases which are illustrated by most excellent wood cuts.

The authors method of performing any operation is most carefully described in every particular, so that the reader can not help but understand his meaning, and one of the first impressions given is the wonderful amount of mechanical ingenuity that is displayed in the treatment of cases. In fact, a suitable instrument is always adapted in every case. This is undoubtedly one very important element in the successful treatment of all deformities. Five lectures are devoted to the treatment of talipes.

Twelve lectures are devoted to diseases of the joints, most of which the author believes are of traumatic origin, and not as is commonly supposed, the result of a scrofulous diathesis, and that the cachectic condition so frequently found is the result and not the cause of the disease. The early treatment of all these cases is of the utmost importance.

The author graphically narrates the first successful case of exsection of the head of the femur performed in this country, as made by him in March, 1874. Other cases are given with plan of treatment, following which he gives a table 59 cases of ex-sections of head of the femur, performed by him, with date and results of operation.

On the treatment of deformities of the spine, he says: "The use of all fixed apparatus in the earlier stage, as in the treatment of all deformities where we wish to restore lost muscular power, is positively injurious. The principle which should guide you is, to place upon the stretch those muscles which have been inactive and relaxed, and approximate the origin and insertion of the muscles you wish to remain quiescent." The volume closes with a report of some cases of wrist drop, caused by "Laird's Bloom of Youth."

The Student's Guide to Dental Anatomy and Surgery. By HENRY SEWILL, Member of the Royal Colleges of Surgeons and Licentiate in Dental Surgery, etc. Philadelphia: Lindsay & Blakiston. For sale by Robert Clarke & Co. Price \$2 50.

In cities it is customary for medical practitioners to turn all practice that pertains to the teeth over to Dentists. Where this can be done, we think the plan a good one, as scarcely any physicians are qualified to intelligently practice dentistry, but in country districts the case is entirely different, and all country practitioners are required by their patrons to occasionally do some dental work,

and further if their patrons go to a dentist the doctors advice is often asked. To such physicians this little volume will be not only a good thing to have in the library, but a good book to read.

For students of dentistry, we will say if they must have a manual this is a most excellent one. It is a practical elementary work.

We are in receipt of a series of six pamphlets, describing and illustrating various articles exhibited at the International Exhibition, from the Army Medical Musuem at Washington. No. 1, Is a list of Skeletons and Crania in the Section on Comparative Anatomy of the U. S. A. Med. Museum. This is one of the finest collections in the world. No. 2, A description of Models of Hospital Cars, with plans of a Post Hospital of twenty-four beds. No. 3, A description of the Models of Hospitals. No. 4, A description of Models of Hospital Steam Vessels. No. 5, A description of improved U. S. A. Medicine Wagon and Mess Chest. No. 6, A description of the U. S. A. Medical Transport Cart. The exhibition of these articles is in charge of J. J. Woodward, Asst. Surgeon, U. S. A.

The whole display is creditable to the Government and the Officers of the Med. Department of the Army.

"A Treatise on Diseases of the Nervous System," By WM. A. HAMMOND." Sixth Edition. 1876. D. Appleton & Co.

There is no necessity, in a general way, of calling attention to this work as a text and consultation book. It has acquired a position, for various reasons. It has been praised excessively and criticised severely. It satisfies fully many readers, it disappoints others as thoughtful and enacting. This last edition possesses the same general features as the preceding ones; there has been a large addition of matter, principally in the less practical departments. The additions have resulted also, to some extent, in changes of classification. Great industry has been shown in the fullness of compilations, in many chapters, so that the work may be considered as a valuable one for reference to those who are not acquainted with the French and German authorities in their original languages. The author is prone to shades of subdivisions in the descriptive parts, and yet the profession in instances has recognized to some extent the practical bearing of his distinctions. It may be truthfully said that there are in this book a great amount of research—a larger number of chapters than any similar treatise contains, and near 900 pages of closely printed matter.

It may also be said that one can resort to its pages for the history, description and pathology of diseases with more satisfaction, than for the more practical requirements of daily business.

We have compared with some curiosity the therapeutical pages of Hammond's works with those of the eminent standard work of the English, the second vol. of Reynold's system of medicine.

Taking Hysteria first in Reynold's, we have very few specifications of medicines, but directions are general. In Hammond, "the first thing to be done is to gain the confidence and respect of the patient" and then put her in a proper frame of mind by giving her bromide of potass. sodium, calcium or zinc, repeated three or four times daily, till the full effect is obtained; "the influence over the mental phenomena of the disease is usually very decidedly shown." Electricity for anæsthesia, strychnia and phosphorus for paralysis, bromides and galvanic current for spasm, strychnia and phosphorus and blisters for visceral derangements, carbonate of bismuth and prussic acid for gastric troubles, ether or chloroform by inhalation for hysterical paroxysms, monobromide of camphor in "status hystericus," for dissipation of hysterical tendency long continued doses of phosphorus and strychnia, withholding of sympathy and severity of manner sometimes. The list is long and presented with confidence.

Alcoholism chronic, in Reynold's, immediate abstinence, animal diet, one gr. quin. three times daily. Æther and ʒss tinct. sunbul for sleep, two grs. oxide of zinc twice daily, bromide potash, indian hemp, hypodermics of morphine, cod liver oil and hypophosphites in advanced cases, strychnia for tremor. Acute alcoholism total and immediate abstinence, plenty of food. Bromide potass., and chloral for sleep.

In Hammond—in Alcoholism, chronic.—Entire cessation from use of alcoholic liquors, the mild cathartic at the beginning—2 or 3 grs. oxide of zinc, three times daily as proposed by Marcet—but, he prefers the bromide of potass, sodium, calcium or ammonium, from 15 to 30 grs., thrice daily; or, what is still better 2 grs. bromide of zinc, 3 or 4 times daily; or occasionally the same with some of the other bromides, digitalis also as a tonic to the heart and as an eliminant of alcohol through the kidneys.

In alcoholism, acute.—In cases of delirium tremens from sudden withdrawal of stimulus, opium with brandy or whisky should be given—procure sleep as soon as possible, best by morphine hypodermically, repeated often as may be required. In delirium tremens during a debauch, nothing can be worse than these substances. In such cases bromides with digitalis are the most effective remedies, one drachm of brom. pot. and a tablespoonful of infusion of digitalis may be given every hour or two—no experience with hydrate of chloral, a slight and favorable experience of monobromide of camphor in 4 gr. doses every hour.

There is here in this disease some marked resemblances of treatment, but Hammond, as usual, runs to the bromide in tolerably hot

haste. The excess of medication is not as great as in his treatment of hysteria, but still considerably over that of the English authority.

Congestion of Brain. Evidently here Hammond meets his greatest triumphs, with probably the exception of softening of brain. One might say that like the war-horse, he snuffs diagnostically these cases afar off and very many times. Then the ever efficient bromides are ready in battle array to meet them.

His therapeutic optimism shows its perfect work in the cure of cerebral softening. The first case, about 3 months duration, was cured in 6 weeks. Phosphide of zinc and ext. nux vom. and phosphorated oil were the valuable medicines. There is no abatement of confidence shown in the present edition of the work. The almost unfailing resort to the different forms of electricity is another persistent feature of Hammond's therapeutics.

A comparison of this work, with the systems and results of treatment of other authors and countries, shows that no such success is met with elsewhere. This may account, in part, for the want of faith which the profession have in Dr. Hammond's claims. Why should his results be so exceptionally good?

Obituary.

IN MEMORIAM.

Report of Committee of the Association of the Alumni of the Miami Medical College on the death of Dr. J. S. Baily, class of 1857.

Dr. Joseph Sydenham Baily was born at Flushing, Belmont Co., O., Feb. 2d, 1830. He was the son of Dr. Jesse and Lydia Baily. The former, who survives him, was for the last fifty years a practicing physician in Flushing.

Dr. Baily was, by birth, a member of the Society of Friends, of which Society he was always an earnest and (with an exception to be presently referred to) a consistent member.

At the age of 16 he engaged in the profession of teaching, which he followed for ten years, the last two as Superintendent of a Female Seminary at Granville, O. At that time he was reading medicine, and in the winter of 1855-6 he attended his first course of lectures at the Starling Medical College, in Columbus, O. In the winter of 1856-7 he attended his second

course at the Miami Medical College, graduating March, 1857, after which he returned to his home and engaged in practice with his father, where he soon acquired such a popularity and reputation as seldom fall to the lot of a young country doctor. On Sept. 1st, 1859, he married Phebe W., daughter of Elisha Hoge, of Flushing. Here he remained until, during the course of the war, the proclamation of emancipation was issued, when the trial came which was to test his devotion to the tenets of the religious society in which he was born and raised, a society founded on the gospel which teaches "peace on earth," but believing also that that gospel inspires us with "good will toward men," and "remembering those in bonds as bound with them," he laid aside his peace principles and lent his aid to the government that had declared before all the world that this was indeed the land of the free.

He remained in the army until Oct., 1863, when, on account of ill-health, he resigned and returned to his home, where he remained about three years. He then removed to Freeport, Harrison Co., O., where he did a good business until, in Feb., 1875, he was thrown from his carriage and sustained an injury of the spine, from the effect of which he died Aug. 29, 1875.

As a professional man Dr. B. stood among the first of the portion of the State in which he lived—the peer of those who were much his seniors in years and experience. Possessed of an unusually active mind, a student and great lover of science, he gave his days to the study of that profession, whose high and serious responsibilities it was his ambition to properly discharge. He was assiduous in his attention to the sick. In his intercourse with his brethren his bearing was that of a man of high professional honor.

Dr. B. was not a writer. He has, I believe, contributed nothing to the literature of his profession, but he was a worker. He was one of the first to advocate the organization of, and one of the most active in supporting the Stillwater Medical Society, of which he was for sometime President. It was his constant endeavor to elevate the standing and increase the usefulness of his profession.

A pattern of filial obedience, conjugal fidelity, fraternal affection and paternal tenderness, he filled the full measure as son, husband, brother and father.

He was a scholar, an accomplished gentleman, a true christian; and like a christian awaiting a christian's reward, he fell into "that sleep from which no one wakes to weep."

B. STANTON, *Committee.*

THE CINCINNATI
LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.
T. M. STEVENS, M. D., Ass't. Editor.

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Original Communications.

*Art. 1—Strictures on the Expression of Ross County in
Regard to the Code of Ethics.*

By J. R. BLACK, M. D., Newark, Ohio.

While perusing in the LANCET AND OBSERVER of April, 1876, the report of the remarkable proceedings of a meeting of physicians, held in Chillicothe, in regard to the organization of a society based upon the code of ethics, I was led by the animus of the remarks and the vote of the meeting inwardly to exclaim poor, dark, benighted Ross! It has not seemed possible that in one of the oldest counties of the State medical men, in good standing, could be found whose ideas of the ethics of the profession were so ignominious and peurile. But some recent events have awakened me to the fact that the views of some of the physicians of Ross are not peculiar to that soil, that they are held, but more covertly, by some men of acknowledged standing in other portion of the State, and that it is high time for the friends of the code to "rise up," even if outside of Ross, in its defense.

Whilst not claiming perfection for the code nor any special ability on my part for its defence, I am yet unable, meekly,

to abide the assaults of those who seem far more anxious to destroy what must be acknowledged as containing much that is good, than to reconstruct or improve. Perhaps those thus actuated imagine themselves to have all the virtues of iconoclasts! they strive to break down, but what do they strive to set up? no new code of precepts—all they want is the fullest swing to their own sweet wills. Why, bless you, they can no more abide rules or laws than can an Irishman with a shillala at a Donnybrook fair. What they are really striving for is not the liberty to do right or to do better, but the license for each to do as *I* please. If the ego in such a case is a gentleman, by knowledge and instinct, then all may be well; but if otherwise, then those upon whom the sacred trust of the physician devolves will be often sure by trickery and pettifoggery to bring scandal and disgrace upon the entire profession. No one can deny that the medical profession contains many unworthy members—men mean in spirit, craven at heart, who do not scruple at falsehood or misrepresentation to accomplish their selfish end.

The code of ethics, be it remembered, is not made to catch gentlemen but selfish and dishonorable tricksters; just as the statute law is not made to catch honest men but the rogues of society. And, it is worthy of remark that it is the latter who complain of the laws, who do not wish to be coerced, but to follow out to the fullest the license of their desires. Nor is it any more necessary and difficult to restrain or coerce the rogues of society than the pettifogging tricksters of the profession. Not a few of the latter are so depraved organically that they can not help acting other than meanly and scurrily at every golden opportunity. Kept within some bounds they may be, but fully reformed—never. Others have a desire to be honorable, but the desire to add to their local fame or to their accumulation of dollars and cents is far stronger, and not to be resisted. Hence, their honor is made to kick the beam by the mere automatic force of the stronger passions. There are yet others who are inwardly conscious that their abilities or acquirements are of an inferior order. They know that they must fight their way, if at all, not by talent and industry but by superior cunning, falsehood, misrepresentation and artful boasting. Rules to condemn and to hold in check such unworthy conduct is quite as needful as the Ten Commandments were for the factitious Jews.

Some plausible objectors say, why all that is necessary for physicians is that they should act the gentleman with each other, or do as they would wish to be done by. Truly this is

sapiency embalmed, oracular wisdom in a nutshell! Is it not! oh wiseacre! quite as applicable to society at large, superceding the necessity of any laws or of courts of justice, as to the relations of physicians to each other? Legislation so primitive would delight the scoundrel and the rogue. Nothing annoys and worries them more than a code of laws; it is galling to their liberty, and promotes discord by concentrating public attention upon their acts. Only let them alone and all would be lovely.

Perhaps the golden rule might do as a guide if all were truly good, but I beg to recall the fact that we have not yet reached that millennial condition. Neither in the profession nor out of it are all truly good; in fact, very many are truly bad. Try the efficacy of the vaunted rule on some of the latter in the medical profession, and I venture to say it would prove as amazingly effective! as a restrainer or corrector as the shooting of Niagara. Nothing will reach the almost invulnerable sensorium commune of an unscrupulous physician half so effectively as when the united voice of the whole profession is raised against him. For the individual opinions of his rivals, he rejoices and takes pride in the expression of his contempt. But when the whole medical world speaks in condemnation, he can scarcely fail to feel more or less abashed and ashamed. The utterances of the code *are this united voice*; let them stand, they will righteously adjudicate many wrongs and put some restraint on the tongues and acts of the vicious.

But the vaunted golden rule is not half so infallible as a guide to correct medical deportment as some suppose. An illustrative case will best elucidate this declaration. I was called in consultation with a physician, now deceased, to see a nervous old lady supposed to be dying. The entire family were anxiously grouped around the bedside with the physicians. After learning the history of her case, a prominent feature of which was obstinate constipation, requiring the use of a very active cathartic every few days—the use of which brought on, at each occasion, the most alarming prostration. I proposed to retire for consultation, but the attendant physician, with a grand wave of the hand, authoritatively said “no! I have no secrets to conceal, nothing but what I would wish mother S—— to hear; we will talk over her case right here.” My courage thus challenged, and especially by one my senior, I could only, after a protest, accede—and among the recommendations I made was this—to administer a remedy that would act gently, but surely, upon the bowels at least once a day. The family attendant emphatically declared that

this could not be done, he had tried that plan, and knew her case. Still I insisted that I thought it could be; the entire family listening closely to the discussion. The end of it was that he agreed to give the remedy I proposed a trial, the result of which was that it acted precisely as I had declared. I heard nothing of the case from the family until about a week after, when one of the daughters came into my office with the request that I should take charge of her mother. The reason she assigned was, that the family attendant had had a "good long chance to cure her, had failed, and they all thought I understood her disease better than he." I afterwards learned that they judged thus from the result of the treatment for the constipation which they had heard discussed during the consultation. The family attendant was most intensely chagrined over his dismissal, and seemed to feel as if I were in some way to blame. Now, the action of the physician in this case was in no way in conflict with the golden rule, according to his opinion; indeed it was expressly based upon it. Yet it was in conflict with the code—and as a result he was most intensely mortified and punished. Could any thing better illustrate the wisdom of the rule of privacy in consultations—leaving out of consideration the effect a full and free disclosure of opinion may have upon the patient? Had he done as the code required no one would ever have known that there was any difference of opinion, or from whom the change of treatment emanated.

There are others who object to the code, that it is not sufficiently liberal, forbidding consultations with irregulars, say these objectors, why in this manner we can save life, we can perhaps convince the patrons of irregular medicine of the error of their ways.

Now it may be possible that there are men so bland and lymphatically stupid as to believe this, as well as to believe that such are really the main motives of some physicians in holding official intercourse with irregulars. But let the Waddles, Scearces and Miesses not delude themselves with the hope that they can thus hoodwink the profession by the oily utterance of some trite moral maxim.

When a regular and irregular physician meet in consultation one or the other must stultify himself. They can not meet on common ground. Irregulars are not at liberty to use any remedy whatever, or in any dose which offers the strongest possibility of success in the removal of disease. Their judgment and action are fettered in advance by the dogmas of their creed. The regular physician, bound by no creed in

reference to the employment of any remedy, whether it be animal, vegetable or mineral, or in reference to the size of the dose, save what is sanctioned by the accumulated experience of ages, meets the homeopath or the eclectic for the express purpose of administering the remedy which, of all others, will be most likely, from the light of this accumulated experience, to save the life of the patient. He knows, in advance, that he must either yield his judgment to the dogmas of the irregular, or the irregular must repudiate his dogmas. The regular comes to the bedside to use, in homely phrase, large or small shot for the removal of the disease, whichever will best accomplish that purpose; but the homeopath says no sir, you shall never, for any disease, under any circumstances, use large shot with my consent. What is the upshot, but unseemly wrangling, scandal and disgrace.

But there is more than a mere personal issue in such cases, there is a most important principle involved. Loyalty to science and to truth requires that no one shall countenance or affiliate with error, especially when that error is erected into a system. Would the Paris Academy or the Royal Astronomical Society of England admit that German priest, to fellowship, who has made himself notorious by publicly teaching that the earth is flat and motionless? By admitting the prominent advocates of every wild delusion to their ranks they would demean themselves, prove recreants to truth, destroy their prestige and usefulness, and insure, as they ought, their own disgrace and speedy dissolution. Now, medicine is a science quite as truly as astronomy, and all the votaries of regular medicine are committed to the immortal doctrine of Bacon, that all true knowledge and progress comes of interrogating nature. The mind must be left wholly free and unfettered by any dogmatic assertions or arbitrary rules in the development of truth and progress. In the practice of medicine it is the regular physicians boast that he can use or advocate the use of any substance whatever, or in any dose whatever, and *this is his orthodoxy*. But the moment he sets his rule, or his special method of curing disease into an exclusive dogma, or erects a system of arbitrary laws which no one must vary from, he is no longer orthodox, he violates the true spirit of inductive philosophy, and of all that renders science progressive. In effect he would fain revive authority for experience, and the method of mind for the method of nature, precisely what was done during the dark ages. This is the exact status of the homeopathic and eclectic systems of medicine. Every disciple of the former has his faculties fettered

by certain arbitrary rules or dogmas, such as: a remedy that will produce symptoms similar to a disease will cure that disease; small doses often infinitesimally so, must only be used to cure; and cathartics should never be employed. Liberty to test the truth of these dogmas by the touchstone of experience is the prerogative only of regulars, it is forbidden to the homeopath. The removal of all restrictions upon the judgment, the granting of entire liberty to the mind to enquire and investigate is the grand and essential characteristic of regular medicine, the imposition of restrictions such as those in reference to cathartics or the use of mercurials is the characteristic of irregular medicine. And, by the way, it is amazing to see how men of good natural abilities cling to their dogmas, never venturing on a trial of cathartics in disease to see if it be not the best way of removing some disorders. They know quite well that men and women put a great deal of trash into their stomachs, which ferments and pollutes the intestinal canal—yet they say, do not purge, in good time nature will remove all the impurities herself. The only wonder is, that the consistent souls among them ever use any soap and water for the removal of the impure matter on their skin, they should wait until nature is ready and she will scale it off herself. The one is quite as consistent as the other. Really the gap between the absurdities of the German priest and the homeopathist is very small, and justice to truth, science, to the afflicted and to our own prestige as true scientists require that we should neither countenance nor affiliate with systems as false as they are shallow, and as dogmatic as the most antiquated philosophy of the ancient world could desire.

But suppose that an eclectic or homeopatist, under the stress of some specially urgent surgical, obstetrical or other case, should be apparently willing to lay aside or ignore the dogmas of his sect, should a regular physician meet him upon humane considerations alone. Only those who are dazzled by the prospect of a good fee are unable to see the sham of such a plea. It is easy to place the responsibility where it belongs, by saying to the messenger, sir, dismiss your empiric and I will do what I can for your friend. Bring me a man willing and free to do anything, or use any expedient to save life, and I will meet him in counsel. But I refuse to meet your irregular physician on the express head that he is neither willing nor free to do the one or the other. Besides, do not all know, who know anything at all of irregulars, as a class, that they would not carry out, in good faith, the recommendations

of a regular physician, and thus risk the destruction of faith in themselves and in the systems they practice. Is it not a fact that their main capital in trade consists in detracting and villifying the regular system of practice; they study and labor far more how to win proselytes to their faith than how to win knowledge over that which is obscure or unknown in the realms of life and disease. While the regular physician spends his leisure hours in striving to add to the sum of knowledge in his profession, irregulars spend theirs in representing the regular school as a set of old fogies, and the users of medicine that poisons the human body, infinitely worse than the virus of small pox, scrofula or syphilis. What honor or good faith can be expected of such falsifiers and bushwhackers in science? If I am severe, it is because the subject demands it, and the truth is not half told. Examine their periodical literature, and a large part of it will be found to be mere sectarian twaddle, designed as a boast of the success of their systems, or as a lift to those of waning faith. Little wonder that they can not point with pride to a single notable discovery any of them have made in the annals of medicine.

But they are not laborers in that field, all their talent is monopolized in gaining patrons, *not* in adding to their general stock of knowledge. In anatomy, in histology, in physiology, in surgery, in obstetrics, or in practice wherein have the world of humans been benefited by a single great discovery they have made? Who discovered the circulation of the blood, introduced vaccination, drove scurvy from the seas, wiped out the plague, discovered the means of hindering the spread of cholera, discovered and introduced disinfectants, invented the larynginscope and ophthalmoscope, discovered the origin of a mystic disease caused by trichinia, and brought into use that inestimable boon to humanity the employment of chloroform in surgical operations. All these, and a thousand other discoveries and improvements of a less notable character that have aided in throwing light on the preservation of health and cure of disease have been made by regular physicians. The patrons of irregular medicine can not point to a *single* remedy of great value these pseudo reformers have discovered, nor to a *single* fatal disease their systems have rendered more curable. And yet, forsooth they claim, and tens of thousands of credulous people believe them that they are the true representatives of progressive medicine.

No one who truly loves and honors his profession can bring his mind to affiliate with such promoters of fraud, let those who do, no longer strive to put their conduct in an improper

light, no longer afflict the profession with their false pretenses. Let them have the manliness, at least, to give the true inwardness of their acts; the desire to pocket consultation fees, not the sham pretense of rescuing the deluded, or the duty of rendering services for the afflicted. These are altogether incidental, but for the sake of the fees, they would compromise the great cause of scientific truth, foster error, belittle their profession, and reduce medicine to the level of a swinish trade. Let all such be anathama, maranathama.

Art. 2.—Epilepsy.

Read before the Drake Academy of Medicine and the Dubois County Medical Society. By W. R. McMAHON, M. D., of Huntingburgh, Indiana.

The causative agent in each given case primarily is either centric or excentric. In the former we suppose that there is and has been some subtle molecular change in the nerve cells in the region of the base of the brain, and this change is of such a nature, degree and intensity as to assume the full rounded form of a cause fully adequate to the production of epilepsy. But it is to the excentric causes of epilepsy, that I wish to call attention, and here we find that we are not thrown, in all cases, on the unguided drift of supposition as in the centric cause; but that we can often localize and demonstrate the causative agent, and, as such, disrobe it of its power, or remove it from the temple it is despoiling.

Having thus premised these general remarks concerning epilepsy I proceed to the enumeration of the generally recognized excentric causes of the disease, as follows: "first, mechanical injuries to some sentient nerve; secondly, irritation of the intestinal canal from worms or indigestible matters; and, thirdly, a morbid condition of the genital organs." These, in the broadest sense, constitute the principal excentric causes.

Cases arising from the first enumerated cause may occur at any age. Cases arising from the second cause have been, and I think rightly too, confined to the age of childhood; but the cases arising from the morbid or irritable condition of the genital organs have been, as I conceive, erroneously confined, in the main, to the age of puberty, and excluded as a causative agent in the epilepsy of children, where it yields a large per centum of cases.

My attention was first called to this subject by the report of Prof. Sayre to The American Medical Association, of a number of cases of reflex paralysis, caused by the irritation arising from phymosis and adherent prepuce to the corona of the penis. Taking this as my premise, and then recognizing the close analogy that exists between epilepsy and all other nervous diseases with their varied manifestations, I was forced to the following conclusions: that if this abnormal condition of the genital organs could produce or had produced in a given number of cases, anæmia of the spinal cord, and, as an effect of that, paralysis of the inferior extremities, the same cause might and most probably would in a certain number of cases produce epilepsy or any other nervous manifestation that is susceptible of having an eccentric origin.

Again, Sir Thomas Watson, in speaking of the causes of epilepsy enumerates among others the following: debauchery of all kind; the habitual indulgence in intoxicating liquors; and above all the most formidable predisposing cause, not congenital, masturbation. Sir Charles Lacock attributes the great increase of the disease, during late years, to the last named cause. Now if the opinions of these great men are correct, that masturbation will produce irritation of the sentient or sympathetic nervous system or both with that degree of irritative intensity, as to produce epilepsy in the adult and then admitting that the difference between genital irritation in children and that produced by masturbation in adults is a quantitative one, we are then driven to the conclusion that genital irritation, in a greatly diminished degree would produce epilepsy in childhood; at a time when the system stands vibrating on the convulsive brink, only awaiting a jar or nervous discord to precipitate it into the convulsive arena from which it is hard to remove.

Convulsions arising from this cause in childhood, if the cause be not removed will in a variable length of time, in each given cause effect the nervous centres, thereby transferring or converting an eccentric cause into a centric one that is continuing and abiding and perhaps susceptible of transmitting the convulsive impress from an eccentric cause from generation to generation. My opinion is that phymosis and adhesion of prepuce to corona are of much more frequent occurrence than they are generally supposed to be, and that often this trouble exists for a long time, and, perhaps through life, without producing any nervous trouble whatever, but unfortunately, this is not always the case, as Prof. Sayre has shown us in regard to reflex paralysis and as we hope to do in regard to epilepsy.

The foregoing conclusion I consider verified by the following three cases:

CASE 1. C. D., a well developed round faced good looking boy, aged four years, was brought to me by his parents, who gave the following history of the case: He was in good health until January, 1874, when without any premonitions whatever, he was seized with a severe convulsion characterized by a perfect loss of consciousness; a contracted trembling condition of the voluntary muscles; grinding of teeth, and foaming at the mouth. This condition lasted from one to two minutes when relaxation commenced, which emerged into a stupor of several hours duration when he awoke rational. His penis was now noticed to be erected and on examination it was found in an irritant state. He had several seizures during the first two days and then none for several weeks when the cycle was repeated. This order of activity and repose continued unabated under the bromides and various other forms of treatment, until April, 1875, at which time his parents state his penis was in a state of irritation and that considerable pus escaped from the preputial orifice, after which his convulsions ceased in the main, leaving only a light "Petit mal" variety, separated by long intervals. On December 22d, 1875, I was called in. Examining the organ, I found a long redundant prepuce and partial phymosis. The prepuce was retracted over the corona with great difficulty. After its retraction, the crease behind the corona was found in a suppurating condition. On the sides of the corona were suppurating spots marking the site of former adhesions of the prepuce to the corona. The entire crown of the organ was in a red irritated condition, but contained neither smegma nor pus. After the examination I ordered the prepuce retracted once each day, parts cleaned and then sponged with some mild astringent.

At this time his father states that the irritation has subsided, and that there is not the faintest trace of epilepsy.

The analysis of this case I conceive to be this: At the time of his first seizure, there was adhesion of the prepuce to the corona and that the smegma accumulating acted as a foreign body, induced suppuration, the sentient nerves in this region became irritated and through these the convulsive centre or centres; this condition continued until last April, when the adhesions or resistance gave way before the imprisoned matter and made its escape, these sentient nerves were no longer teased, the cause was removed and the boy recovered.

CASE 2. Charles Fisher, æt. 6 years, was attacked with epilepsy on April 7, 1874. Up to that time he was a well

developed bright boy, and enjoyed uninterrupted good health. His attack was of a sudden character, and not preceded by any premonitions and marked by about the same character as the preceding case as regards the frequency, duration and intensity. This continued in a modified form under large dose of the bromides and other treatment until December, 1875.

In December, 1875, I examined his genital organs and found firm adhesions just behind the meatus urinarius; and on December 27, 1875, in the presence of Dr. J. P. Williams, I separated these adhesions and retracted the prepuce, behind which was imprisoned smegma in considerable quantity, and the parts were in a state of irritation. From the date of his attack to the present time he had gradually grown dull and listless, clumsy and irascible and at times his eyes, generally preceding his attacks, would assume the appearance of a fish's eye. His parents state that before, after and during these convulsions he would complain of his penis being in a state of erection. After the breaking up of adhesions, near five months ago, all medication was suspended and at present he is well; has not had a single symptom of a convulsion since; has regained his former activity and his eyes their wonted expressiveness.

CASE 3. On 2d of March, 1875, Mrs. G—— brought her little boy, three years old into my office and stated that some time since he had commenced having spasms, that he would foam at the mouth, grind his teeth together, and would jerk all over, during these spells and for sometime afterward he was unconscious. I examined his genital organs and found firm adhesions of the prepuce to the corona. With the assistance of my student, James Harris, I separated the adhesions and gave no medicine whatever. Since two months he has had no convulsions or symptoms of convulsions. Although the time is too short, to be positive there is yet ample base to conjecture that the boy is cured of his epilepsy.

Genital irritation in the female, if of sufficient intensity, would produce like results as in the male, as Prof. Sayre has shown us in regard to reflex paralysis. I regret that I did not make an ophthalmoscopic examination of the eyes of the second case. The fish like appearance must have been due to a departure of the circulation from a normal standard dependant on disturbance of the sympathetic system.

We do not claim that all children afflicted with nervous troubles are subject to genital irritation; nor do we claim that all children afflicted with genital malformation are subject to nervous trouble. But we do claim that in a certain number of

cases it plays an important role and in others it is the only causative factor. Jewish people are found exempt, to some extent, from nervous trouble, due, no doubt, to circumcision.

The object of this paper is to throw open the door of this large and extensive field and to invite men of observation and science to explore its recesses, who in time will tell us more about this important subject.

Art. 3.—A Brief Statement of the Present Status of Cataract Extraction, with Statistics of Individual Work.

By A. D. WILLIAMS, M. D., Surgeon in charge of the St. Louis Eye and Ear Institute. Read before the Des Moines Valley, (Iowa,) Medical Association at Fairfield, Iowa, June 28, 1876.

Most of the permanent eye surgeons have settled upon the comparatively recent methods of extraction known as *Graefe's Modified Linear Extraction* as the method for removing cataracts. The general success of any method is what must determine its merits, and claims to superiority over other methods of operating. The methods have been about as numerous as the men engaged in this department of surgery, but I do not propose to enter into even a short description of these here. I wish now merely to state briefly that Graefe's method is to be considered far ahead of all others, from the fact that the profession has so uniformly adopted it to the exclusion of everything else. There may be a very few exceptions of those who do not practice this method, but they are mostly persons who have hobbies of their own. Graefe's method is about ten years old. In 1865, when I was in Berlin, this indomitable worker in ophthalmology had just begun to practice the new method of extraction and soon the great success of *the new method* was published all over the world. Graefe himself writing long and exhaustive articles on the subject as his work developed the merits of the method. I had the honor of writing the first description of his method ever published in this country in the spring of '66.

Previous to the introduction of the modified method, linear extraction had been practised by various operators. In these older linear extractions the incisions were made entirely in the cornea, Graefe modified this method by making the incision

just within the sclerotic. This explains why he calls his method "The Modified Linear Extraction," which afterwards by common consent, took the author's name. The advantages of the modified method over the older one, is found in the fact that in the former the incision is made wholly in the sclerotic which is richly supplied with blood vessels, while in the latter the incision is made wholly in the cornea which contains no blood vessels at all. Because of the rich blood supply, incisions in the sclerotic heal uniformly, when properly cropted, while incisions in the cornea under the most favourable circumstances often cause sloughing for want, as is supposed, of sufficient nourishment, because the part has no blood supply. This may satisfactorily explain the greatly improved results from Graefe's new method over the old mode of operating. I do not propose to describe minutely the details of the Modified Linear Extraction, as that has been done so often I suppose the profession well understands how the operation is made.

Up to the time Graefe introduced his new method of extracting cataracts, the losses after the various old methods of operating ranged all the way from 10 to 25 per cent. They were totally lost. A still greater per cent. had to undergo operations for the removal of secondary cataract. Graefe's new method gives a total loss of from four to six per cent.; then the number of secondary cataracts requiring operations amounts to six to ten per cent. of the whole, so it will be seen that the difference in results makes a big showing in favor of Graefe's method of operating. Prof. Arlt of Vienna, has recently reduced the per cent. of complete losses down to between one and two per cent., so a friend of mine just returned from his clinic informs me. This is the grandest result ever attained by any operator so far as known. Prof. Arlt, has long been recognized as one of the most successful operators in the world.

When I returned home from Germany in the spring of 1866, I made the first *modified linear extraction* ever made in the West, if not the first ever made in the United States. It is possible that the operation was made in New York, a few days previous to my first operation. My patient was an old lady from Nashville, Tenn., who is still living and has been reading novels ever since the operation, now ten years ago. During these ten years I have been making Graefe's operation exclusively, and have every reason to be satisfied with the results. Of my first fifty cases the rate per cent. of total losses was four or two cases. One of these was an old and childish man from Northern Indiana. He was excessively "fidgety" and nervous, had he been a woman "*hysterics*" would have been

the term applied to his complaint. After the operation he would often spring up in bed to take peppermint water to prevent suffocation as he thought, it was out of the question to keep him quiet, which is very essential in cataract operations. When I took the bandage off I enjoined absolute quiet and he promised faithfully to obey. In five minutes after I left the room he was at the window looking down upon a bright street in a hot summer day trying what he could see. The eye progressed favorably for several days in spite of his "ripping around," but finally his misbehavior spoiled the result and the eye was lost. In my judgment there is no doubt but that under favorable circumstances and good behavior on his part the result would have been good, as vision was bright for some days after the operation. Some months afterward I operated on his remaining eye and had a good result. This being his "last chance" he was perfectly obedient and nothing abnormal occurred during his recovery.

The other case of total loss was in an old man quite corpulent, who had previously gone through a siege of granulated lids. The conjunctiva was badly atrophied and was perfectly black from the improper use of nitrate of silver. This made the prognosis very unfavorable to begin with. During the operation the assistant in snipping off the iris stuck the scissors through the wound and caused a large escape of vitreous humor. This careless accident made the prognosis still more unfavorable. After the operation the eye inflamed internally and finally atrophied. This case should properly be thrown out of the statistics because of the unfavorable prognosis on account of the bad condition of the eye. The loss, in the first case, was certainly owing to the unruly conduct of the patient, but I include both as losses. Thus far I have had to make second operations on account of secondary cataract in only two cases. One of these was caused by an accident two or three days after the operation. A drunken nurse poured a cup of hot coffee into the patient's face which caused inflammation, resulting in secondary cataract. Since the cases mentioned I have had no losses, the secondary operations resulting well, and I am entirely satisfied with this showing in favor of Graefe's method, the modified linear extraction. Indeed I have been so well satisfied with my results in this operation that I have never tried any other. The old corneal flap operation is now quite generally abandoned and, as I think very properly, so.

In conclusion let me say, that success in cataract operations depends largely upon the most scrupulous care and attention after the operation.

Art. 4—Gun-shot Wound of the Eye-ball.

By W. R. AMICK, M. D., Cincinnati, Ohio.

October 10th, William S——, a young man nineteen years of age, was out gunning with a few of his companions. While in the woods they saw another party of young men who were also gunning. When they approached within about fifty yards of each other, one of the men in the second party, either accidentally or otherwise, discharged a shot gun in the direction of the first party, one of the shot striking S—— in the right eye. He cried out that he was shot, and his companions assisted him home. On seeing the patient the next day I received the above statement. At the time of receiving the injury he had his face turned at an angle of about forty-five degrees to the left of the party who fired the gun.

On examination I found an irregular wound of the right cornea, situated a little external to its center. From this point the cornea appeared to be torn or ruptured across the center and half way to the internal margin. The whole of the anterior part of the eye was in a collapsed state. A thin bloody discharge was escaping from the wound. There was also a slight discharge of vitreous humor. The upper lip of the wound was overlapping the under. There was considerable circum-corneal injection, and he complained of pain in and around the eye. The conjunctiva was injected, and the lids somewhat swollen, the latter probably due to the patient rubbing them with his hand. The globe was very soft, and slight pressure produced considerable pain. The patient had had a slight discharge of blood from the right nostril, but knew no cause for it. He stated that immediately after receiving the injury he could see, but in a few moments everything became dark in that eye. His companions told him that the eye looked red, which was caused by the hemorrhage in the anterior chamber. On account of the latter, and the haziness of the cornea, it was impossible to tell anything about the iris.

The patient thought that the shot was still in the eye, but did not care about being operated upon, but after telling him that the sight was irrecoverably lost, and the probable result that inflammation would follow, sooner or later, in the other eye, and cause sight in it to be either partially or entirely destroyed if the right eye was left in its present condition, he concluded to have it operated upon. Cold applications were ordered, and the patient directed to take a saline cathartic.

The next day the inflammation was not so marked, but he still complained of the pain. As we thought it best not to delay too long, we gave him chloroform, and enucleated the eye. The tissues, at the inner side of the orbit, over the os planum of the ethmoid, were very much lacerated and bloody. The shot, somewhat battered and flattened, was found in the posterior part of the orbit, lying on the inner side of the optic nerve.

An examination of the eye, after it had been removed, revealed a lacerated condition of the inner portion of the iris, the wound involving its papillary margin. There was a wound through the choroid and sclerotic coats in the equatorial region, under the internal rectus muscle. There was an ecchymosis on the sclerotic coat in the region where the shot was located. The lens could not be found; it had probably escaped directly upon receipt of the injury. The after treatment consisted chiefly of the cold water compresses. The lacerated condition of the tissues at the inner portion of the orbit made recovery slower than it would otherwise have been. A small amount of suppuration took place, which was treated by poulticing, then using an astringent solution of five grains of nitrate of silver, which was applied daily, at the same time syringing out the orbit with a dilute solution of carbolic acid. In the course of three weeks the trouble had entirely ceased, leaving the cavity in a very fair condition for the patient to wear an artificial eye.

Art. 5.—Observations on Variola.

Read before the Alumni Association of the Miami Medical College, June 29, 1876, by JAS. L. NEAVE, M. D., Cincinnati, Ohio.

It is not the object of this paper to enter into any account of the clinical history of variola, but simply to direct attention to some few points of interest occurring in cases under my immediate observation; more in the hope of eliciting discussion and obtaining new ideas than from any thought of presenting any new ideas myself.

My point of observation having been among a class of people who either bitterly opposed vaccination or else were utterly careless and indifferent about it, gave me ample opportunity of observing the disease in all its purity, unmodified and

undefiled. In support of this remark I would offer the fact that out of thirty cases coming under my care, but two had ever been vaccinated. In several instances, vaccination was delayed until small-pox appeared in the house, and then the result was almost invariably negative. In one case, vaccinia and variola (semi-confluent) ran a parallel course, neither apparently interfering with the other in the slightest degree—each passing uninterruptedly through its stages. By way of questioning the vexed subject of the transmissibility of other disease with the vaccina virus, repeated insertions of the crust obtained from this patient were made in different individuals, and these invariably failed to produce the slightest effect, scarcely even irritating the arm. Whether this is the usual result from the use of such material, I am not prepared to state. As another example of another disease running a parallel course with variola, may be mentioned that of a child, where nearly the entire cutaneous surface was covered with a pronounced roseolar eruption, making its appearance while the variolous pustules on the face were drying. The only change remarked in the general condition of the child was some slight elevation of temperature lasting not more than twelve hours.

The different degrees of susceptibility in different persons, to the virus of small-pox, was strikingly illustrated in a family that came under my notice, occupying but a single room. Three children occupying the same bed were taken sick, simultaneously. In one, the disease developed into that peculiar form, where, instead of well filled pocks, are found only empty, flattened bullæ, the skin forming each, having a parboiled appearance. A second child developed into a severe case of discrete variola, the pocks being very thickly distributed, especially over the face and limbs. The third resulted in a very mild case of varioloid, there being not a dozen pocks on the entire body, and only two or three of these showing the peculiar, almost pathognomic central depression. These children were not separated, but were kept together under a common covering until after the death of the first mentioned, which occurred on the eighth day of its sickness. A fourth child remaining constantly in the room, escaped the disease entirely, showing not the slightest indisposition. Not one of these children had ever been vaccinated, and my attempt in the fourth case failed utterly; the child seeming proof against both vaccina and variola.

The petechial or undeveloped variety of this disease would appear almost to be a separate and distinct affection, instead of being simply a variety of small-pox. The clinical history

of each, alike in some particulars, at the same time differing in degree, is also so utterly at variance in other respects that the practitioner is compelled in justice to himself to be exceedingly cautious how he pronounces any given case to be one of small-pox. The proper plan to pursue in these cases would seem to be to postpone the diagnosis for a day or two, when if the suspicion prove correct, the patient will certainly die and it will then be perfectly safe to gravely announce the case as one of undeveloped variola. No damage is done and the doctors medical acumen is unquestioned. Two cases of this description came under my care, and in neither was there a sign of the eruption of variola. The prodromes of variola, the lumbar and cephalic pains, were present in each case, in an exaggerated degree. In both, the face was extremely flushed, this flush extending in one case over the entire body; the eyes were injected; the pulse full and rapid; and the skin extremely hot and dry, imparting a peculiar burning sensation to the hand. It was impossible to induce diaphoresis; every known means failing utterly. To one case (a child aged eight years) two ten grain doses of pulv. ipecac were administered with an interval of less than a half hour. As an emetic the remedy was a success; but the main object was a flat failure, only a slight moisture of the forehead being produced. Both cases died on the third day after coming under my notice—one in convulsions. In the other there seemed to be a strong tendency towards this latter complication which was probably controlled to some extent at least, by the exhibition of large doses of bromide of potassium. Both these cases were seen by myself within twelve hours preceding death, and in neither was there the slightest appearance of any eruption, properly speaking. After death it was noticed that upon the chest; the entire neck excepting immediately anteriorly; back of the ears and encroaching slightly on to the face, there was a peculiar, livid mottled appearance, the superficial veins appearing congested, and dividing the surface into irregular patches of an ashen, pinkish color. There was also some tumefaction, especially marked in the ears and their immediate neighborhood. On questioning the parents as to the time when this condition was first noticeable, in both instances the reply was, that it seemed almost immediately to precede death. In one case there were a few points of dark discoloration not elevated in the slightest degree.

As regards treatment I have no new theories to advance. The expectant plan was adopted and the treatment conducted on general principles. As a rule the citrate of iron and

quinine was exhibited until after the subsidence of the secondary fever, when the pyrophosphate of iron was substituted and the patient continued under its influence for several weeks. For ectrotics collodion and tinct. of iodine were tried, resulting in an emphatic verdict in favor of the latter—iodine. In several cases where this remedy was faithfully used at least once daily, beginning immediately upon the appearance of the eruption, while it was yet papular, the resulting pitting was almost nil; and in all cases where this remedy was employed, its influence for good was very noticeable.

Art. 6.—Alcohol as a Medicine.

Paper read before the Delaware County Medical Association, by LYMAN POTTER, M. D., of Leonardsburg, Delaware Co., Ohio.

Having long observed the deplorable effects of this agent upon individuals and the community, I have sincerely wished that it might be banished from our land, believing that the evils it produces far outweigh those which it prevents or mitigates. Yet that it is very convenient, and indispensable in the preparation of medicines as at present employed, can not be denied. The cause of *temperance, health and humanity* will, in my opinion, be best promoted by assigning it its proper place, acknowledging its power for good, as well as demonstrating its evil influences.

What, then, is alcohol, medicinally considered? Most writers, justly, as I think, call it a stimulant; some class it among narcotics, sedatives, debilitants. Some, who call it narcotic, allege that in a moderate dose, its first effect is to stimulate. It is said to quicken the pulse, increase bodily temperature, enliven the feeling, and promote the flow of thought, thus evidencing a stimulation of the sanguineous and nervous systems. Experiments demonstrate that in large doses it overwhelms and kills like other strong narcotic poisons—opium, tobacco, strychnine, prussic acid.

Writers on therapeutics classify medicinal agents according to their individual fancy. We may call alcohol a stimulant or sedative, an elevator or depressor, a strengthener or debilitator; it is each and all according to circumstances.

To illustrate: A boy living upon the bank of the river

breaks through the ice and gets a complete wetting. He runs home, strips, wipes dry, puts on dry clothes, and returns to his skating. What was his bath? The sudden application of cold to the nerve extremities was a powerful shock. The blood was driven from the capillaries, and its general circulation retarded: a sedative—when he was dried and reclothed, and returned to his exercise, his heart was incited to increased effort, the blood was driven to the surface in greater volume, his face was ruddy, there was a pleasant glow and increased animation: his bath was a *stimulant*.

But the increased action of the heart, and flow of nervous energy, which spurred him on to greater activity, brought more speedy exhaustion, and he became tired and sleepy, and his bath was a *narcotic*.

I wish to use this figure in several ways. 1st. As a type of the action of alcohol. According to the weight of authority, which I think is verified by observation, the first physiological effect of a moderate dose is to slightly stimulate the heart and arteries (increasing, in a small degree, the animal heat and physical strength), and to more decidedly stimulate the brain and the nervous functions. This increase, however, is not permanent, both heart and brain falling below what they would have been had no stimulation been employed. In view of this fact, alcohol is worse than useless to impart permanent strength, yet we can not say that it can never be usefully used by the healthy. Testimony is not wanting to show that a man can, for a short time, perform more labor with than without spirituous liquors. A pedestrian has a long journey before him; in order to accomplish it in the shortest practicable time, he does not walk as far as possible the first day, he will tell you he "takes it as he can stand it." He must each day put forth only the effort that will leave him in good plight for walking the next. But, one day after going nearly his usual distance, he finds that he *must* go ten miles further for food and lodging, he knows that this will detract more than ten miles from his travel on the next and succeeding days, but it is better to make *this* sacrifice than a greater. Now, I believe that he can go this extra ten miles easier, and with less exhaustion, by taking a moderate dram, than he can without it; whereas, if he had taken the dram at the beginning of his journey, or even in the morning of this day, it would have detracted from his ability to reach the desired point. The same philosophy will apply to alcohol in the treatment of disease. It is commonly recommended to be given as a *stimulant*, a *supporter*, in the *advanced stages* of low forms of

disease, like typhoid fever, when the vital powers are sinking and in danger of giving way, recognizing the fact that the strength gained for to-day is but borrowed, subtracted, from to-morrow's stock. To-morrow it must be replaced from that of the next day, and so on until renewed nutrition can increase the common stock.

Can this borrowing be justified? I think it can be. If the boy who broke through the ice had been unable to get out, and had hung by his chin until chilled almost to death, until the blood, driven from the capillaries, lay motionless in the smaller vessels, until the heart could scarce propel it through the larger vessels and the congested lungs, had he been recovered in such condition his life would depend upon a speedy restoration of circulation and warmth. For such restoration I think a stimulating (not narcotic) dose of alcohol an efficient helper. So, when sinking in disease, if the failing heart and lungs can, by stimulation, be kept at work a little longer, the patient may be borne on until the natural crisis of the disease, or until other agencies can be brought to bear to recruit the failing strength.

Yet stimulation is not devoid of danger. We may begin to borrow before the borrowed strength is imperatively demanded, thus rendering the system less liable to bear up at the time of greatest depression. This point calls for the best judgment of the practitioner.

But alcohol is sometimes given to moderate excessive action. There is evidence that in low forms of fever, characterized by hot dry skin, quick feeble pulse, and low muttering delirium or coma, large doses of alcohol sometimes abate the delirium, cool the surface, and render the pulse fuller and slower. These symptoms indicate deficient nerve power. The impoverished blood fails to supply sufficient nutriment and stimulus to the brain. The heart, not receiving sufficient nervous influence to enable it to make forcible contractions, strives to make up in frequency what it lacks in force. How can we best help it to overcome its difficulties? This is a characteristic condition of typhoid fever, which has been treated in various and opposite ways. Some, looking upon it as an enemy to be overcome by powerful depletives, have sought to quell it by bleeding, active puking and purging, nauseating doses of antimony, and mercury pushed to the point of salivation.

This anti-phlogistic treatment is not now popular. We seek to build up rather than pull down—to sustain the patient, not to starve the fever. We see in the struggling circulation

a prostrated nerve power, prostrated by starvation, because the impoverished blood can not feed it. We endeavor to supply sustenance to the system by an abundance of liquid food; we seek to arouse the brain by the stimulus of alcohol. The sluggish brain does not readily respond, and we give large and still larger doses. The morbid heat abates, the pulse becomes slower and fuller, there is less delirium. Is this improvement apparent or real, temporary or permanent? The physiological effect of alcohol is to apparently improve the health of a person already well. Is not its pathological effect the same? If you build up the patient to-day, by giving him a quart of whisky, I believe that, in consequence thereof, he will sink the lower to-morrow, unless the dose be repeated. That the stimulus may be so timed as to carry through safely some who would sink without it, I am not inclined to dispute, but I doubt the wisdom of beginning to sustain with so uncertain a prop until the danger is imminent.

That the symptoms are sometimes improved by large doses of alcohol is granted, but this is not the only way of relieving them. Is it the best way? The surface can be cooled and the pulse moderated by emetic tartar, digitalis or veratrum. Any of these I would consider still more dangerous than whisky; because more depressing, yet a patient might recover after taking all of them.

The surface can be cooled, the pulse improved, and the delirium abated by the free and frequent application of cold water. This I think the best of all ways, as it is at least equally efficient at the time, and free from the objections which lie against the others.

The most plausible argument for the free and continued use of alcohol is that it is a *food*, supplying to the system elements which it greatly needs; or enabling it to appropriate such elements from other food which otherwise it could not. The theory, perhaps correct, is, that in typhoid conditions the brain and the blood suffer from want of oxygen—that sufficient carbon is not received from the alimentary canal to be exchanged for oxygen in the lungs—and that alcohol furnishes our readiest and best means of supplying the deficient carbon. With this as a scientific question I am incompetent to deal. Results are more satisfactory than theory, and to these I would appeal so far as data are accessible. Numerous recoveries have occurred under the alcoholic treatment; so also have they under its antagonist, the anti-phlogistic; and it would seem from reports that there has been quite as large a percentage of recoveries where no active treatment has been pursued:

showing that the recuperative powers of the system are often sufficient to overcome disease whether assisted, opposed, or let alone. Homœopathy can point to its success in typhoid fever; this success can only be due to the fact, so far as medication with infinitesimal doses is concerned, that the natural course of the disease is not interfered with.

That the sustaining plan is more rational than the depressing, I admit; that it is more successful I fully believe; that the brain may be temporarily roused from its extreme torpor by large doses of alcohol I have no doubt; but that this is the *best* way to cool the surface, moderate the pulse, and calm the delirium, I do not admit. I believe that the first requisite of successful treatment in these cases is an abundant supply of oxygen to the lungs by free ventilation; secondly, enriching the blood by a sufficiency of easily assimilated food; thirdly, cooling the heated surface and relieving the clogged pores and capillaries by the free application of cold water; and fourthly, by the strictest attention to the cleanliness of the clothing and surroundings, as well as of person. No medication in my opinion, can compensate for the omission of these.

It has been said here that Bellevue Hospital has adopted the alcoholic plan of treating typhoid fever. It would be interesting to know if its success is better under this mode of treatment than it was under any other. Dr. Flint reports that 84 cases at that hospital, in tents so open that all the clothes and bedding of the patients were saturated with rain the first night they lay there; twelve of them being comatose when placed there; were all treated *without alcohol*, and with little medication of any kind, and *all recovered*. I am not aware that it is claimed that equal success has ever attended the alcoholic treatment; and this is one of the diseases in which alcohol is thought to be most indispensable.

It is well to examine carefully the ground upon which rests the popularity of alcohol in health and in disease. Our feelings after taking it—the symptoms immediately following its administration—are uncertain guides. When we are well our health can not be improved, and yet we *feel* better after taking a dram. We well know the cause of our exuberant spirits, while we are ready to ascribe to something else the depression which is sure to follow. So, by analogy, we might expect a temporary abatement of the symptoms of disease, while the succeeding aggravation is ascribed to the disease itself. For this reason there is a strong temptation to make stimulating prescriptions. We may ourselves be deceived; or, if *we* are not, our *patients* may be, and we reap a benefit in reputation and purse, to which we are not justly entitled.

We well know the disastrous effects of alcohol in the community—how it leads its victims by imperceptible steps to destruction—how it tells the young man that an occasional little dram does him good—how it convinces him that he can not dispense with habitual moderate drinking—how it leads him to occasional excess—how it drives him to habitual drunkenness; thus adding, strand by strand, to the fetters which bind him, until he becomes a helpless oinomaniac.

It would seem as if physicians, who know so well the seductive character of alcohol, and see so much of its disastrous effects, would guard themselves against its diabolical power. Yet they are but men with the same passions and appetites as others, and seem to be just as easily enchanted by the voice of the syren. They are peculiarly tried. Their irregularity of meals, their want of rest, their anxiety of mind, and their periods of idleness, seem to demand something to buoy them up. Alcohol will do it for the time; and, as it is to them always easy of access, it is too often their resort. Thus we find that a larger per centage of physicians than of other classes become oinomaniacs.*

Great is the influence of physicians over the habits of a community; and in proportion to their influence is their responsibility. It is their duty to do what they can to stay the ravages of pestilence, to remove the causes of insanity, to warn the people against those habits which lead to self destruction. Foremost among these habits is the common use of alcoholic liquors. It is our duty to discountenance in every suitable way such habitual use. This does not require us to take untenable ground against their proper medicinal employment; but we should use them with caution, remembering that alcohol is the most seductive and dangerous poison belonging to the *Materia Medica*.

*[This statement is believed, by very many, to be correct, and for the reason expressed by the author of this paper. But, from careful inquiry, we are fully satisfied that such a belief is erroneous. Let any one, who desires to investigate the subject, take up a City or State Directory, go over the list of physicians, and similar lists of those engaged in other occupations, and he will very soon be satisfied that the medical profession are singularly free from the sin of intemperance. In this city there are nearly four hundred practicing physicians, and we believe it would be difficult to find a dozen who, under any pretext, drink to intoxication. While there are, as

Dr. Potter says, peculiar temptations for physicians to indulge any appetite they may have for the cup that makes the heart glad, there are exceedingly strong temptations for them to resist the inclination. As they know full well that moderate drinking is apt, sooner or later, to lead to over indulgence, and that just as soon as their patrons discover the propensity, away goes business and reputation. No other class of men, with the single exception of the clerical, are so easily and quickly affected in their business by the habit of drink as physicians. In these days when doctors are so abundant, and such ample opportunities are afforded for a choice among many, the people in this enlightened age will not place their lives in jeopardy by knowingly employing a physician who habitually drinks even in moderation.—ED.]

Art. 7—Case of Non-Irritable Uterus.

By C. SHRIVER, M. D., Bethany, W. Va.

Mrs. A——, æt. 36. Being satisfied that she was again pregnant about three months. She having been my patron for several years; and for reasons satisfactory to myself, I determined to relieve the uterus of its contents before the supposed time of viability. As a first step I give her ʒi powd. ergot, with directions to divide into three separate portions, and of each portion to make one pint of infusion, to be used in three consecutive days, at the same time use the douche four times daily. She, as I believe, followed every direction faithfully. She visited my office eight days after the first prescription was given, and reported the desired result not attained. I directed her to continue the douche for four days longer, and again report to me. She did so, with the same result as before. She being now over three and a half months advanced in her pregnancy I determined to use the uterine sound. She consented, and I passed the instrument (after some difficulty), into the uterine cavity; the sound entering about $3\frac{1}{2}$ inches, and turning it so as to make one complete lateral revolution; gave her more ergot, to be used in the same manner as the first portions. In a few days I expected

to be called to see her, but she did not return for 15 days, and still found our treatment unsuccessful. I then penetrated the uterus with a female catheter about the size of a No. 6 male instrument, and drew off the amniotic water, and thought I would surely be successful, but was not; and in about two weeks I used the catheter again; and after waiting some days I went to the city and procured a number of sponge tents of different sizes. On the night of the 15th of July I inserted the first in the cervical canal, and let it remain twenty-four hours, when I removed it and inserted one of a larger size, and it remained about the same length of time; on its removal the os was dilated to nearly one inch in diameter, and I apparently detected slight hardening with alternate relaxation. When I used the first tent I prescribed *vin. ergot* ʒii every four hours. On the night of the 22d of July the contents of the uterus were expelled. There was but very little pain or hemorrhage; the fetus was enclosed in its proper sack, a positive evidence that membranes once punctured may unite, and the waters of the amnion again collect, for in this case there is not the least doubt that about six weeks before the water flowed freely through the catheter I used.

I have placed at the head of this the caption of "Non-Irritable Uterus," and as far as my experience enlightens me, and from my authors, I find nothing except that which leads me to think it a very remarkable case.

Our masters teach us always to be extremely cautious in instrumental manipulations, about and within the uterus, and I have frequently felt that all practitioners would be more successful in the treatment of uterine diseases if practice were more bold, for anatomists tell us that the organ in question is one that is not largely supplied with nerves. Nevertheless, Prof. Wallace, of Jefferson College, was wont to say in his lectures that no more force should be used in instrumental manipulations of the uterus than could be borne without pain if a probe were pressed against the mucus membrane of the internal nares.

I think that the following conclusions may be drawn from the above recital:

1st. That there are cases in which *ergot* and all other reputed emmenagogues fail in exciting uterine action.

2d. That even the uterine sound will fail in inducing the organ to discharge its contents.

3d. The amniotic fluid may be discharged and again collect in proper quantity, and not be evacuated until discharged with the contained fetus.

4th. That the sponge tent is preferable to all other modes of dilating the cervical canal.

5th. That it is gradual and almost painless.

6th. That there is little or no hemorrhage following its use.

7th. That it is the most speedy, safe and successful method of inducing premature labor.

**Art. 8.—Brain Symptoms in Tympanic Affections.—
Serious Brain Symptoms often occur in Comparatively
Trivial Affections of the Drum Cavities.**

By A. D. WILLIAMS, M. D., Surgeon in charge of the St. Louis Eye and Ear Institute. Read before the Des Moines Valley (Iowa,) Medical Association, at Fairfield, June 28, 1876.

There is a most intimate connection, by means of nerves and blood vessels, between the drum cavities and the cranial cavity. Because of this very close anatomical relation it would naturally be supposed that disease of the drum cavities would very seriously effect the great organ that fills the cranial cavity.

In actual experience it is found that both mild and severe affections of the drums often produce very serious brain symptoms, which so frequently overshadow every other symptom so completely that physicians are very apt to mistake quite a mild affection of the drums for actual inflammation of the brain or its membranes. Of course a very unfavorable prognosis must follow such a diagnosis. In the course of my experience I have met with from 30 to 40 cases in which prominent physicians had mistaken acute inflammation of the membranes or substance of the brain. Most of the cases of the kind were infants and children; too young to tell of their sufferings and where they were located, except one case, a young man from 18 to 20 years old, who became suddenly so bad, in fact delirious, that he could not give any account of the locality of his pains. In all of the cases various kinds of inflammation of the brain and its membranes had been diagnosed and correspondingly unfavorable prognoses made. Many of the little sufferers, according to the attending physicians, were bound to die and that soon; a very natural conclusion, considering the frequent comatose condition of the patients and the diagnosis in each individual case. The history uniformly showed that the grave brain symptoms persisted for

one to five days, when suddenly a discharge from one or both ears, (which of course came from the drums,) and all the brain symptoms as suddenly disappeared, and the patients, so far as head symptoms were concerned, got well, if not in a few minutes, certainly in a few hours. In the case of the young man the discharge came from each ear, and he as rapidly as the children got well. In all the cases the discharge was the first evidence the attending physician had of the true condition of affairs, and at the same time revealed to him his faulty diagnosis. Every physician should strive to avoid such humiliating mistakes out of self-defense, if nothing else; for every physician suffers in reputation that makes such a mistake, however excusable it may be. If any mistakes in diagnosis are ever excusable, those under consideration are, for the symptoms in the two diseases simulate very closely indeed.

The only certain way for physicians to avoid making such mistakes is to uniformly examine the drum heads in all cases where there is the least doubt of the correctness of the diagnosis. This is particularly necessary in infants and children, too small to tell where their pains are. In fact the pain sometimes involves the whole head so completely that it is not always very easy for even grown persons to locate the *pain-focus* in one or both ears. In all such cases the appearance of the drum heads will readily and unmistakably reveal the presence or absence of acute inflammation in the drum cavities. The intense redness, and sometimes, particularly in the later stages, more or less bulging of portions of the membrana tympani will enable any one to diagnose, with certainty, the presence of acute inflammation inside of the drum cavity. Finding such a condition in the drum would exclude the probability of intra-cranial inflammation, as it is not known that the two diseases ever co-exist, yet such a coincidence may occur.

In addition to the direct inspection of the drums, the throat should be examined, and, if acute inflammation is found there, that would be corroborative evidence of acute inflammation in the drums, as the inflammation usually begins in the throat in the form of cold and extends into the drums.

The cause of the brain symptoms in acute inflammation of the drums is indirect pressure upon the brain through the labyrinth. This pressure occurs mainly, in my judgment, through the *foramen rotundum* upon the fluid in the cochlea, and is thence transmitted through the labyrinth to the brain. Soon after the inflammation sets in, the tympanum begins to fill with secretions, which press the drum head outwards, and

of necessity must press the membrane in the foramen rotundum inwards to the same extent. Thus the pressure is started and is transmitted to the brain, as just stated. The distention of the drum has a tendency, through the chain of little bones, to *draw* the foot of the stapes outwards, so that not so much actual pressure passes to the brain through the *foramen ovale* as through the *foramen rotundum*. The drawing of the foot of stapes has, however, about the same effect upon the brain as pressure.

Such is a very *brief* consideration of the severe brain symptoms often produced, more particularly in infants, children and young people, by acute inflammation of the drum cavities, which is commonly called *abscess* of drums.

The nature of the trouble suggests at once the proper treatment, which I barely refer to here.

As soon as the diagnosis is established with certainty, the membrana tympani should be punctured so as to evacuate the contents of the drum cavity, and immediately all the brain symptoms, threatening as they may be, are at an end.

IMPERFECT VENTILATION OF THE DRUM CAVITIES OFTEN PRODUCES MILD AND SOMETIMES GREAT DIZZINESS.

I hear patients speak and even complain so often of *dizziness* of various degrees in affections of the eustachian tubes, either alone or combined with disease of the drum cavities, that I begin to consider it one of the prominent symptoms of disease of those parts. It indicates more particularly obstruction of the eustachian tubes, producing what I call imperfect ventilation of the drums. The manner in which this imperfect ventilation of the drum cavities is produced is very easily understood. Persons who have chronic or acute pharyngitis are most liable to have this obstruction. The inflammation in the throat extends, from some cause, into the tubes, and produces similar inflammation there. This causes the mucous membrane in the tubes to swell sufficiently to interfere with the free entrance and exit of air through the tube, as is the case in a physiological condition. Thus the imperfect ventilation is easily started. Soon the inflamed mucous membrane throws out a tough fluid, usually muco-purulent in character, which increases the obstruction and, of course, diminishes the necessary ventilation still more. As soon as the entrance of the air is obstructed, the air in the drum cavity is very soon absorbed, and thus the necessary equilibrium between the external and internal air is destroyed. The external air presses

the drum head inwards with considerable force, and that presses the foot of the stapes inwards upon the fluid in the labyrinth, and through that the pressure is transmitted to the brain and gives rise to the dizziness.

In the acute inflammation or abscess of the drum it will be remembered that the brain symptoms are produced by distension of the drum cavity, while dizziness is produced by compression of that cavity.

The degree of the dizziness will depend upon the degree or amount of obstruction in the tubes.

I do not know that chronic inflammation in the drum cavity alone ever produces dizziness. I have not met with such a case as yet. The dizziness therefore is symptomatic, particularly of obstruction in the tubes, one or both, from whatever cause that may occur. Usually the obstruction is in the mouth of the tube.

Sudden obstruction produces the greatest possible dizziness from imperfect ventilation. Epileptoid spasm may follow sudden and quite complete obstruction of the tubes. I have just examined a young man who says he has been somewhat hard of hearing for some time past, and has had some noises in his ears. Last night he became suddenly so dizzy that he "fainted twice," which means that he fell twice. This alarmed him and caused him to seek advice.

The cause of the dizziness will suggest the proper treatment in all such cases. In a word, the proper ventilation of the drum cavities should be restored as *promptly* and *early* as possible. This is most effectually done by inflating the drums. The method of inflation I will not describe here.

In addition to restoring the proper ventilation, the throat must be carefully treated in order to affect a permanent cure.

In a prognostic sense, the dizziness is a favorable symptom, because it shows that the obstruction is in the mouth of the tube, or tubes, and that it is of rather recent origin. After the obstruction has continued for a considerable time, the parts involved gradually become accustomed to the abnormal condition, and consequently the dizziness gradually diminishes, and may disappear entirely.

Throwing the head backward sometimes increases the dizziness, because, as I suppose, that position of the head produces an increased congestion in the inflamed membrane, which increases, for the moment, the obstruction. Persons in bed sometimes feel a dizziness, and they say the sensation is that of falling or undulating motion, as if riding over waves.

To illustrate quite forcibly, I will refer very briefly to a single case:

Mr. A——, middle age, has been slightly hard of hearing for some weeks. Recently he has become excessively dizzy. Knows no cause. He staggers back and forth across the sidewalk, and even runs into the gutter, if there is nothing for him to catch hold of. Every body thinks he is *drunk*. Is not able to attend to business on account of the dizziness, and of course seeks relief. Has not had any pain.

Upon examination, I found that he had evidences of syphilis. Had syphilitic pharyngitis. The drum heads were pressed inwards, otherwise natural in appearance. By inflating the drums I found that the tubes were obstructed mostly about the mouths, but the obstruction extended a little into the tubes.

Diagnosis—Obstruction of the tubes by syphilitic inflammation of the mucous membrane, producing imperfect ventilation of the drums, which causes the excessive dizziness.

Treatment—Anti-syphilitic medication, internal and daily inflation of the drums. The case improved from the very start, and in about two weeks went to work, and has been at it ever since.

Many of the cases of dizziness complain of popping or cracking noises in their ears when they blow their nose, sneeze, cough, yawn, or swallow. The explanation is very easy. During these acts the air is forced through the obstruction and enters the drum with a pop or cracking noise. This is a favorable symptom, as it shows that the obstruction is not firm and may be produced by a collection of tough mucus.

POLYPOID GROWTHS IN THE DRUM CAVITY AND PLUGS OF WAX IN THE EXTERNAL MEATUS PRODUCE NOT ONLY DIZZINESS BUT ALSO EPILEPTOID SPASMS.

A couple of cases will illustrate this statement better than a general description :

Mr. C——, of middle age. Has been deaf in one ear from childhood. Some years ago he had, as he supposed, an abscess in his good ear, which has been discharging ever since, more or less. Sought advice, because the deafness interfered with his business.

Upon examination it was discovered that a hard, polypoid substance was projecting through the drum head from within.

The history showed that since the abscess formed the patient had been more or less dizzy at times, the dizziness having increased very much as time passed. Recently the dizziness became so excessive that the man would stagger on the street, like a drunken man. He would often hear persons remark as he passed : "That man is killing himself drinking," when, in

fact, he had not touched a drop for months. He soon began to lose his consciousness, temporarily, and, without any premonition whatever, he would frequently fall on the street; he would not fall over, but his legs would double up under him, and down he would come, as though he had been shot or struck suddenly. In a moment or two he would be able to get up and move on, though continually staggering. About this time he began to be sleepy, and no amount of effort on his part, nor any amount of mental labor, would keep him awake. In conversation he would fall suddenly asleep. In the midst of an exciting trial in court, and even while he was examining a witness, he would sometimes fall into a deep sleep suddenly and snore away in the presence of the court, jury and lawyers! He became finally so stupid he could not continue to read and could not comprehend what he read. He became so bad that his life got to be almost a continual sleep. No wonder he sought relief! He came to me more on account of his deafness, which troubled him greatly in his business. When he first came in he was constantly sleeping.

Diagnosis—Polypoid growth in the drum cavity, breaking out through the drum head. All the brain symptoms probably depend upon the indirect pressure of the polypoid growth upon the brain.

Treatment—The only thing to be done was to remove the "growth."

After long tedious efforts, which I will not detail here, I succeeded in getting the polypoid tumor away. The nature of the growth I have not been able to make out satisfactorily. It was not a polypus, hence I call it a *polypoid*. I believe it was either an *animal* or *vegetable parasite*.

As I got the tumor or growth away (the treatment lasted about three months) the brain symptoms began to subside. His mind became more active; was less sleepy; the epileptoid spasms or fits began to disappear. Before he left he could read and comprehend everything. The brain symptoms had about disappeared. His hearing power was nearly destroyed, but, with the aid of a trumpet, he was quite sure he could continue his profession.

Evidently the brain symptoms all depended upon the pressure from the polypoid growth. He had never had any pain except when the abscess formed.

CASE OF WAX IN EXTERNAL MEATUS.

Some weeks since, an Irishman, a laborer, came in with this history: Had been somewhat deaf for about twenty years;

had been more or less dizzy most of that time. Sometimes very dizzy and at other times only slightly so. Had fallen three times. One time, when he fell, he struck his head against the bedstead and hurt himself badly. Was afraid he was going to have fits.

Upon examination, I found a hard plug of wax in each ear. These I washed out. His hearing returned at once, and all the head symptoms were at an end. The symptoms of dizziness and epileptoid spasms, or falls, were no doubt produced by the pressure of the wax plugs upon the drum heads.

In many of these cases of dizziness the mental powers are not unfrequently blunted. The persons complain of not being able to control their minds. They say they can not concentrate their thoughts as formerly, and cannot comprehend easily what they read. Sometimes they say they are actually stupid. A perfectly clear condition of the drum cavities and the eustachian tubes is absolutely necessary, not only to perfect hearing, but also to the free exercise and effectual work of the mental powers.

If, in conclusion, I might venture a slight prediction, I would say that the time is certainly not far distant when physicians will make it a rule to look carefully into the ears of all infants and young persons where disease of the brain is suspected.

In grown people they ought to seek for the frequent cause of dizziness and epileptoid falls in the normal condition of the tubes, drums and external ears.

I have thus hurriedly thrown together some items I have gathered by actual observation in every day work. I trust they will not prove uninteresting to my medical friends in general practice.

If I have thrown a single ray of light upon many apparently serious brain symptoms, which do not depend for their cause upon actual disease of the brain, my object in writing these pages will be attained.

Art. 9.—Movable or Floating Kidney.

A paper read before the Hocking Valley Medical Association by the President, GEO. S. COURTRIGHT, M. D., Lithopolis, Ohio.

The correct location and relation of the kidney, as well as the anatomy of the organ, being found in any work on anatomy, I will not refer to it. It is, however, well to notice that it is held in place by tissues possessed of but little strength, composed of cellular or adipose tissue.

In lean persons, or those disposed to a relaxed condition of the muscles, this gives but little support, and, in consequence, it is occasionally found displaced; not as often, however, as we would think it might be from the small support given to it.

The diagnosis is not always so easy, varying, of course, as to the location of the displaced organ and the condition we find the parts in at the time of making the examination.

Works on surgery do not mention the displacement; neither do we find it mentioned or described in works on the practice of medicine, and it is only in works on the diseases of the kidneys, and in medical journals we are to look for any report of cases that have been observed from time to time.

CASE. Mrs. N——, æt. 45; Irish descent; married, mother of eleven children, one pair of twins thirteen years old, her youngest child, six years old; is above medium height, spare build, weight 134 lbs., has usually enjoyed good health up to two years ago, when she first noticed a tumor in the right side below the ribs, which, at times, was somewhat painful, more especially after a hard days work.

Has never suffered to any great extent with irregularity of the menstrual functions. I first saw her February 23d, 1875, in consultation with the late Dr. J. H. Nau, of Carroll. At this time she was tender on pressure, and there was slight dullness in the right lumbar region. Bowels constipated and with some nervous trouble, somewhat like hysteria. At this time we gave her the anti-spasmodics and nervous sedatives, and a pill to regulate the bowels. We then thought it might, as it seemed, be impacted feces in the cæcum.

I saw her again July 23d, 1875, when we found dullness as before in the right side, with an indistinct tumor below the ribs, and to the right of the umbilicus, but, as she was tender to the touch, it was impossible to clearly define the tumor, which, in size, was about four inches long, and lying perpendicular to the body. We made a careful examination of the uterus, which was not connected to the tumor, and was normal in size; but we were not fully satisfied as to the nature of the enlargement. At this time she was also suffering with nervous symptoms.

I did not see the patient again until July 15th, 1876, almost one year after the former visit, when I met Dr. J. G. Nau in consultation. She now states that she has been irregular in her menstrual periods for the last four or five months, recurring every three weeks, and the last time the flow continued for three weeks, and had ceased just the day before our visit.

On specular examination we found the os uteri congested,

with some abrasions, and, on introducing the uterine sound, slight hemorrhage was produced. The uterus was found to be normal, in regard to depth, and no serious displacement of the organ was discovered.

On examining the abdomen, the patient being placed on her back, with the legs flexed, and the muscles of the abdomen relaxed, we found a lump or tumor in the right lumbar region below the ribs, which could be pushed down to the inner side of the crest of the ilium, and to the right of the umbilicus, in size and shape corresponding to the *human kidney*. On percussion this elicited a dull sound, and we could move it back towards the spine, or bring it forward toward the umbilicus. She says that at times, when she is standing, it presses down towards the right inguinal region, we could grasp the tumor through the abdominal walls.

About four weeks before this she had a slight attack of indigestion, accompanied with a slight œdematous condition of the feet, and, at this time, Dr. Nau made an examination of the urine, and found the specific gravity to be 1020, but could not find either albumen or bile in it.

At the time of our visit the bowels were regular, and no swelling of the feet or lower extremities.

She also said that after a hard days work, the tumor seemed to be slightly larger, and produced a dragging sensation when upon her feet, and also a sickening or slightly painful sensation when we grasped the tumor in our fingers.

At this time the tumor was lying transversely across the abdomen, with one end pointing to the umbilicus and the other to the crest of the ilium. The urine was about normal in amount, and she could get up and work without any serious annoyance.

In DaCosta's excellent work on Medical Diagnosis, 2d edition, page 543, he says: "When the kidneys are not firmly held by their attachments they become displaced, and are then apt to give rise to serious errors in diagnosis." In my first and second examinations of the case, the tumor was not definitely ascertained, owing to reasons given in the history above. And the patient had also been examined by other medical gentlemen without their coming to any definite conclusion in regard to the diagnosis.

DaCosta further says: "The apparently morbid mass is very easily moved, may be, by careful and methodical pressure, returned to the renal region, and presents on percussio the outline of the kidney. There is in some instances sensitiveness over the displaced organ, especially after fatigue, or

a blow, or strong pressure; and pressure in examining the part is very apt to give rise to the same sensations, as when the renal region of the non-affected side is pressed, but we never find any disturbance of the urinary functions, nor indeed, excepting a disagreeable feeling in walking, does any real inconvenience result from the accident, save in those cases in which the movable kidney has become painful, or by compressing the vena cava, or portal veins occasions dropsy."

This corresponds exactly with our case as regards the examination and sensations of the patient. Dr. Nau thought the swelling or œdematous condition of the feet was probably due to a want of action of the liver, but, as stated above, no bile was detected in the urine.

Again from DaCosta: The disorder is most apt to occur, after violent exertion, or after many pregnancies (as in our case), or may be due to attacks of congestion of the organ. The right kidney is more frequently movable than the left; and women are more liable to displacements of the organ than men. The affection may of course be mistaken for any form of abdominal tumor, but can be distinguished by the absence of signs of constitutional disturbance, by the history of the case, and by the physical phenomena already alluded to.

As regards the cause (as quoted above) excessive child-bearing has been thought to be the main cause, but in some of the cases referred to hereafter, we find that women who have only had one child, and others who are classed as girls suffering from a displaced kidney.

In our case the woman was 42 years old before she complained of any trouble, and had not had a child for nearly four years, and did not have a miscarriage in the interval, was healthy, but had always to work hard, being in poor circumstances, and compelled to carry water for house use for some distance, part of the way up a hill, may have had something to do in bringing on the disorder.

As regards treatment, medical writers do not give us much to go upon. And I am inclined to the belief that the most that can be done will be palliative, and if there is much dragging sensation, or pain when walking, applying a bandage or supporter to the abdominal walls, with a compress so placed as to prevent, at least partially, the descent of the kidney, will be all that can be done.

In examining the medical journals on the subject I find but few cases reported.

1st. In the American Journal of Medical Sciences, July, 1876, page 132, a case is reported by G. W. H. Kemper, M. D.,

in which he quotes from Roberts' work on Urinary and Renal Diseases. After reporting a case he had of a woman *æt.* 26 years, in the third month of second pregnancy—"Movable kidney is much more common in women than men, of 51 cases he collected 46 were women, and but 5 men. He also found that of 46 carefully recorded cases in 28 the right kidney alone was movable, in the 8 the left kidney alone was movable, and in 10 both kidneys were movable."

2nd. In Cincinnati LANCET AND OBSERVER, 1866, page 548, we find an article on Anomalous Position of the Kidneys, by D. A. Morse, M. D., in which the writer gives several conditions and situations in which the displaced organ may be found, but does not give us the report of any case that has come under his observation, and says: "These cases of floating kidney cause the patient no inconvenience, unless discovered by them. There may be, in some cases, a dragging down sensation accompanied by some pain. The function of the kidneys is not disturbed. Nothing can be done in the way of treatment. It is impossible to retain it in place in consequence of the surrounding tissues yielding and accommodating themselves to its movements. It will be difficult in these cases to diagnose from other tumors of various nature if the stomach is distended."

3rd. In the London Lancet, from 1851 to 1861, there is no case reported. In 1862 we find two cases reported. The first, on page 55, Vol. 2, in which a specimen of malposition of the right kidney was presented to the Pathological Society of London by Mr. Canton. He says: "This organ occupied the upper part of the anterior surface of the sacrum and extended over the promontory; close above it was the bifurcation of the aorta. The renal vessels were two in number; one sprang from the aorta, immediately before its division, and the other arose from the left iliac artery. The kidney was unusually small and somewhat lobulated. The specimen was removed from an old dissecting room subject."

4th. The second case is on page 337, same volume, under reports of "Guy's Hospital," under the care of Dr. Wilks. "Case of a movable kidney in a healthy girl. Ann F—, aged twenty-five years, servant. She is a strong healthy looking girl, who has never known what a day's illness was. About six weeks ago she first noticed a pain in the left side. Three weeks afterwards, while lifting a kettle off the fire, she says that something gave way in the abdomen, and since then she has noticed a lump which comes and goes in the right side. On examination there can be felt a movable, floating tumor, in

the right lumbar region, about the size and shape of a lemon. The heart, lungs, and urine are quite healthy, bowels constipated, catamenia regular. She is occasionally troubled with vomiting, which greatly distresses her." In some remarks on the case we find as follows: "The right kidney, from its position, is more favorable for recognition when the organ is movable than the left, as the left kidney is liable to be mistaken for the spleen." A movable kidney is now a recognized phenomenon in medicine, several undoubted cases having been made out during life."

5th. In same journal, for 1863, page 470, we find a report of a case of movable kidney of left side: Charring-Cross Hospital. "In this case it was a woman, aged twenty-five, married, but without children. Had been ailing, more or less for twelve years. Two years before, she was told by medical men she had a movable kidney. From the report of this case, there was undoubted organic disease of the organ, as the patient was very sick at times, and the tumor enlarged, with difficulty in passing urine, and then a feeling as though something broke in her side, followed by a free passage of urine, and has something like blood in it."

6th. In same journal for 1864, page 122, there is a report of a case of extreme mobility of both kidneys, in a woman, aged 42, married, mother of ten children. For ten years the patient had felt a tumor in right side as large as a turkey's egg, and within the last few years she became aware that a similar tumor existed in the left side. On examination, a tumor was easily discovered in each lumbar region upon relaxation of the abdominal muscles.

The urine was healthy, but the patient was nervous and apprehensive of her condition. The report closes: "The case forcibly exemplifies the importance of recognizing this condition, and the rapidity with which an improvement may occur in highly nervous person, whose mind has become relieved, having been previously occupied with forebodings of ill."

7th. Same journal, for July, 1869, page 379, Dr. Duffin reports a case of floating kidney: "Female, aged 37, whose right kidney is movable. The discovery was made quite accidentally, as the patient applied for hysterical symptoms, not connected with the urinary organs."

I will not quote from the report further, except to say that out of thirty-five cases collected by Dr. Fritz, of Paris, thirty were in females, and that floating kidney is most common on the right side.

From the brief extracts of the cases noted above, it will be seen that as a rule the displaced kidney does not give rise to any serious disturbance, either of the renal organs or of the general system,—but in case 7th, reported above, was somewhat similar to our patient when first seen by me, February 23, 1875.

The greater frequency of the right kidney being displaced, as well as its being more frequent in females than in males, is a well recognized and undisputed fact, but the reasons for the same are not so well explained.

My own opinion, from the study of the subject, is that after frequent child bearing the muscles of the abdomen become relaxed, and there is a greater amount of adipose tissue in the abdominal walls, than in men, which would tend to weaken them, and the fact that the brim of the pelvic cavity is broader in women than in men, would have a tendency to allow the organs contained in the abdominal cavity to descend lower. And that tight lacing in women has a great tendency to press the organs downwards, would naturally press the kidneys away from their place, and also that the right kidney lies lower in the lumbar region than the left. It would, therefore, be more easily displaced, and the organs when once loosened from their attachments can then float in any direction downwards, forwards or sideways, as far as the ureters will allow.

I could have extended this paper at a much greater length, but the above will be sufficient to call your attention to this subject, and may thus enable you to detect and diagnose the cause, when having a troublesome case of a tumor floating in the abdominal cavity.

Translations.

Diseases of the Skin.

Therapeutic Notes gathered at the Clinic for Cutaneous Diseases of Prof. Hardy, at the Hospital St. Louis. By Dr. E. ORY, Intern of Hospital.

Treatment of Cutaneous Hyperæsthesias.

In this group, altogether artificial, of cutaneous hyperæsthesias, we propose to gather several species of cutaneous

affections, diverse in their origin, but presenting all, to a very high degree, one common and very painful symptom: *Hyperæsthesia*. For example, the various prurigo, strophulus simplex, strophulus pruriginosus, the hyperæsthesia of Icterus, then Zona, urticaria, and even chillblains.

The cutaneous hyperæsthesia may be the cause of profound trouble in the economy; furthermore it presents itself for our observations under the most diverse conditions. At times this painful symptom will be limited to a circumscribed region, the palms of the hands, the plantar surface of the feet, around the anus, or the genital parts. Again, it may be found generalized over the whole body, causing the patient to scratch and provoking prolonged insomnia. The cutaneous hyperæsthesia is often dependant upon uncleanness, upon alcoholic excesses, upon a general debilitated state of the economy from age or poverty, or from disturbance of the gastro-intestinal functions. Developed, maintained by the presence of parasites, we see it often persist for a long time after the disappearance of the parasites, constituting thus, alone, the malady, but demanding nevertheless energetic interference, as it has a great tendency to become chronic. It is necessary to interfere before the malady, prolonged in continuance for months or years, has become rebellious against all therapeutic agents; a thing particularly to be feared in pruritus of the genitals.

Pruritus of the genital parts (*prurigo pudendi muliebris*) excites irresistible itching which forces the patients to scratch: it can thus among other consequences determine the most vicious habits that will persist even after the disappearance of the malady.

Neglect of proper cleanliness being one of the predisposing causes, the first thing to be advised is frequent baths. Then M. Hardy prescribes lotions of alum, of lead water, and above all of the sublimate.

This is the manner the lotions of hydrarg. sublimat. are to be used. Put into a glassful of warm water a teaspoonful of the following solution:

R. Hydrarg. Sublimat.	qrs. xv
Aq. Destill,	ʒiv
Alcohol,	q. s.
M.	

This application should be repeated several times a day.

A similar treatment may be advised for the prurigo of the scrotum and the prurigo of the anus; it is, however, well

known that this latter affection is very often rebellious against all treatment, especially if in the old or in exhausted subjects.

To calm the itching arising from *Intertrigo* I have often heard Prof. Hardy prescribe the following liquid:

R. Glycerine, 5viss
 Aq. Destill, 5viss
 Chloral, grs. xvss
 M.

This lotion is to be applied twice a day to the diseased part. At other times the cutaneous hyperæsthesia is generalized over the whole body; it is this form that is met with in certain old persons who have been afflicted with, and cured of, parasitic affections or general eczema. Numerous excoriations caused by incessant scratching; insomnia and the debility resulting from the want of perfect sleep; nervous irritability; such are some of the consequences resulting from the cutaneous hyperæsthesia. We must therefore use our best endeavors to calm this irritability, in order to remove the disorders resulting therefrom.

For this purpose M. Hardy frequently uses a milk of sulphur. Here the formula:

R. Milk of Almonds, 5vii 5vi
 Sulphur, grs. lxxvii
 M.

The patient is washed twice a day with this sulphur milk, which very quickly brings about a diminution of the itching.

Besides this we may direct the patient to wash himself morning and evening with the following mixture:

R. Milk of Almonds, 5vii 5vi
 Hydrarg. Sublim.
 Chlorhydrate. Ammon. āā grs. iii $\frac{3}{4}$
 M.

Where fresh almonds can not be obtained, the sulphur can be added to a looch; good results have been obtained with the following formula:

R. Syr. Simpl. 5viiss
 Ole. Amygdal. Dule. 5ij
 Aq. Laur. Ceras. 5ijss
 Sulphur, grs. lxxv
 Pulv. Gum Acac. grs. lx
 M.

This mixture is to be applied twice a day. These calming lotions, very useful in combatting the cutaneous hyperæsthesia subsequent to parasitic affections or eczema, are equally useful in *senile pruritis*, which is a veritable neurosis.

The *Strophulus pruriginosus*, with papular eruption, the seat of very severe itching, comes truly under the group of maladies, the treatment of which we are now considering. This is a disease that persists for months, and has a tendency to relapse, especially during the hot months. The role played by bad hygienic surroundings, in favoring its production, is a marked indication for the physician that the first thing to be done in these cases is to improve the hygiene of the patient. Rooms very much exposed to the sun, and in which a large number of persons sleep, rather crowded, wherein the air is renewed with difficulty, such are the conditions in whose midst the *Strophulus* appears. Frequent out door exercise, change of dwelling, frequently suffice to cause the eruption to disappear in a few days; success is however generally momentary; relapses are very frequent. Therefore M. Hardy, not content with watching the habitat of the patient, with ameliorating his hygiene in general, prescribes also tonics to tone up his general system. Iron, quinine, cod liver oil, sulphur baths, bitter infusions, and if possible, a removal from the city and a stay in the fresh air of the country, are the treatment addressed to the general system.

The local treatment, the importance of which is by no means so great, as the above mentioned general one, consists of frequent baths, alkaline or sulphurous, and applications of a powder, composed as follows :

R.	Powder of Wheat Starch (amyli),	3 parts.
	Oxide of Zinc,	1 part.
M.		

Another form of strophulus, and this one very frequent in infants, the *Strophulus Simplex*, appears about the period of dentition, or if at a later period is generally coincident with some gastric embarrassment.

In this latter form a mild purgative may perhaps be advantageously prescribed, but generally, active treatment is out of place. Cooling drinks, the application of the pulvis amyli or lycopodium suffice to calm the itching that accompanies this mild form of strophulus.

In the cases where the prurigo is due to nervous influence, if it be thus a neurosis, the calming lotions indicated above,

and the ointments containing opiates or narcotico-acrid substances, are less successful than the preparations containing ether or chloroform. It is however the general treatment above all that will succeed in overcoming the hyperæsthesia; aconite, belladonna, opium will be efficacious. The oxide of zinc internally has, in the opinion of M. Hardy, very frequently given good results; in other cases five to ten milligrammes* of nitrate of silver, internally have brought about most favorable modifications. In other cases, the sulphur treatment of Aix,** Louchon and more especially of Louesche, have, by provoking cutaneous manifestation (erythema and even pustules) radically cured patients suffering from very obstinate cutaneous hyperæsthesia.

It is not a rare thing, in cases of *Icterus*, to hear patients complain of very severe itching over the whole body; this cutaneous hyperæsthesia is evidently dependent upon the icterus. The lotions of sulphur milk, the baths of sublimate are without effect in this form of pruritus. The *Icterus* must be treated; and as a fact, the prolonged use of a solution of bicarbonate of soda internally, as a tisan—

R_x. Soda Bicarbon. ʒss.

Aq.

1 litre. (35 oz.)

and the administration of six capsules of turpentine per day, somewhat relieved a woman who, attacked with icterus, suffered from a severe cutaneous hyperæsthesia. This patient was also subjected every other day to a large alkaline bath.

By side of the preceding maladies may be placed *Zona*. In fact herpes zoster, during the presence of the vesicles and sometimes for a long while after their disappearance, presents very often a high degree of hyperæsthesia. During the eruptive period of the zona, little should be done by the physician; he should confine himself to shielding the vesicles from external friction which by rubbing off the epidermis would only increase the pain. To preserve the vesicles intact, oil of sweet almond may be applied over the diseased part with a brush, and then powdered over with powder of amylum or lycopodium—forming thus a protective covering. A thick layer of cotton batting will answer the same purpose; it should be then maintained in place until the disappearance of the vesicles. A square of gold beaters skin, glued down at the edges with collodion will form a good dressing by occlusion, very efficacious where sores have already formed.

* 1 Milligramme = $\frac{1}{70}$ gr.

** Aix Les Bains in Savoy.

The powder of amidon and oxide of zinc (formula given above) finds here its application as an antispasmodic; if however the pain be very severe, a pill of opium about one-half grain can be prescribed to procure sleep. If the zona be accompanied by lancinating, shooting pain, we may prescribe the extract of *Datura Stramonium* 5-7 of a grain, alone, or combined with sulphate of quinia three to four grains.

If the vesicles are ruptured and suppurating emollient cataplasms may be ordered of rice or bran, full baths, or the application of opiated cerates. If there be any gangrenous points, the astrigent, excitant lotions, become useful; the powder of quinine topically and the tonic preparations internally are the basis of treatment.

Against the pain, often very severe and persistant that we occasionally meet with as a sequella of zona, especially in enfeebled and aged persons, we should make use of the narcotico acrids, belladonna, *datura stramonium intus et extra*. The last year Prof. Hardy, caused the very severe and very persistent pains, following *Zona* in an enfeebled man aged 55, to disappear by the hypodermic injection every alternate day of the muriate of quinia 1-7 grain with Pravasz's syringe loco dolenti. The morphine may also be used by the endermic method; at other times only an energetic revulsive treatment, (moxas, cauterization superficial) will alone cause these rebellious neuralgias to disappear.

Of the maladies of the skin accompanied by cutaneous hyperæsthesia, *Urticaria* is one of the most painful, and sometimes one of the most rebellious to treatment. M. Hardy proscribes baths; he believes them hurtful. This is the treatment that I have often heard him prescribe, in his service.

1. Powder the diseased parts with powder of amyllum or powder of rice.

2. To take daily in a cup of decoction of barley (tisane) two of the following packages.

Bicarbonate of soda, 5ijss.—divide into twenty packages.

In chronic cases a mild purgation once a week with Pullna* water or the water of Birmenstorf** or simply with sulphate of magnesia, (5ijss.) a cooling tisane, of barley or chiendent, (dog tooth,) or slightly acidulated (lemonade, orangeade) are very useful in remedying the gastro-intestinal troubles. Vegetable diet, and even a milk diet in obstinate cases, the use of

* Mineral Springs in Bohemia. A bitter saline purgative twice the strength of a Seidlitz powder, used in obstinate constipation. See Squire's Comp. to Pharmacop. Brittanica.—Translator.

** Mineral Springs in Switzerland.—Bitter water.—Translator.

Vichy water, of magnesia in cases of acid dyspepsia; lemonade of nitric acid, and lukewarm acid baths containing

Nitric Acid 225 grains to one full bath.

The water of Plombiere, gelatinous baths, are equally beneficial in chronic urticaria.

If there be neither acid nor alkaline dyspepsia we will sometimes derive great advantage from the use of the arsenical preparations; Fowler's solution in doses of 3 to 12 drops, or Pearson's solution 16 to 30 grains per day in 3 doses.

In a case of chronic urticaria of this nature I have seen Prof. Hardy prescribe the following formula:

R. Aqua,	℥xiiss.
Bicarbon Sod.	℥iv.
Arsenate of soda,	grs. iss.
M.	

Sig. One tablespoonful of this solution to be taken before breakfast and before dinner in a little water.

In cases of urticaria, where the manifestations are of intermittent character, the sulphate of quinine seems to act equally as well as the preparations of arsenic.

It is by these means that we can more surely relieve this painful condition of the skin, than by the acidulated washes, and the topical application of powders; powder of rice, of amylum, and even when these latter are combined with camphor or oxide of zinc.

The *Erythema pernio* (chillblain) an affection so common in the winter, is the seat of very severe burning and itching sensations, which are exaggerated by the heat.

The local treatment varies according to the stage that the chillblain has arrived at. In the first period, the stimulating lotions, bathing it with solutions of tannin or alum, innunctions with ointments of tannin, and even the application of sinapisms to stimulate the circulation, often bring about happy results. At a more advanced period, when ulceration has set in, the wound is to be dressed with styrax, or any other tropical stimulant, and bathed with aromatic wine. M. Hardy further orders that the hands be steeped into a tumbler of water, to which

Tincture of Benzoin, 25 drops,

have been added. The general treatment is, however, equally

of great importance; the bitters, the tonics, cod liver oil are necessary to make the chillblains disappear, as they are generally the manifestation of a lymphatic temperament.

In resumé: In the treatment of cutaneous hyperæsthesia there are two indications for treatment, and will be properly met. 1st. By a local treatment; the powders for topical application and the soothing lotions. 2d. By a general treatment; tonics, reconstituants, anti-dyspeptics, anti-neuralgics, according as the case under treatment may demand.—[*Progres Medicales*.

Ophthalmological.

At the meeting of the Biological Society (Paris), June 17, 1876, *Dr. Boucheron* proposed, in sympathetic ophthalmia, to replace enucleation of the eye by section of the ciliary nerves and of the optic nerve. Experiments upon dogs and rabbits prove that in such cases the eye is preserved with or without transparency of its internal structures. Some clinical facts in man (accidental section of the ciliary nerves) militate in favor of this operation, which does not cause that shocking deformity produced by enucleation.

Dr. Poncet replied that there is no certainty in this operation, that we have divided all the ciliary nerves. Besides, in some cases, we can make partial section of the eye an operation, more advantageous than enucleation.—[*Progres Medical*.

A Tonic and Ferruginous Potion.

Dr. Diberder is in the habit of prescribing for chlorotics the following potion, which is easily taken and well borne:

R. Aqua,	ʒvi ʒij
Extr. Gentian,	ʒi grs. xv
Tinct. Gentian,	ʒiij grs. xlv
Ferri et Potass. Tartr.	ʒijss
Syr. Simpl. or	
Syr. Aurantii Cort.,	ʒii ʒiss
Acid Citric,	ʒi ʒivss
M.	

Sig. One tablespoonful before each meal.—[*Lyon Medical, Progres Medical*.

Selections.

Salicin and Salicylic Acid in Rheumatism.

Dr. Maclagan, in the *British Medical Journal*, thus compares the merits of the two substances as remedies for rheumatism:

As I am probably the only person who has experience of both salicin and salicylic acid in the treatment of acute rheumatism, perhaps I may be allowed space for a few remarks on the merits of these two remedies.

Which is the better remedy, salicin or salicylic acid? That each exercises a marvelous influence in cutting short an attack of acute rheumatism, there can be no doubt. I have used salicin or salicylic acid in every case of acute rheumatism which has come under my care since November, 1874 (a year and a half), and invariably with the same result—a rapid cure of the disease. Seeing a patient suffering from acute rheumatism, I have no hesitation in assuring him that within forty-eight hours, possibly within twenty-four, he will be free from pain. That is a very different tale from any that can be told in connection with any other remedy.

Salicin is the remedy which I used first, but I have not confined myself to it. When salicylic acid was first recommended as a febrifuge, I determined to give it a trial in acute rheumatism. In the first case in which I used it, ten grains were ordered every two hours. On seeing the patient, after four doses had been taken, the general condition was a little better, but she complained much of the medicine “burning her throat.” I urged her to continue it. This she did, and on the following morning the pain was less, and the temperature had fallen from 102.3 to 101.1; but to the burning sensation in the throat was now added sickness. I omitted the salicylic acid and gave the same dose of salicin, ten grains every two hours. The sickness ceased; the burning sensation in the throat disappeared; and by the following day the pain was entirely gone from the joints, and the temperature had fallen to 98.8. She made a good recovery.

This case well exemplifies what is the chief objection to salicylic acid—its tendency to produce irritation of the throat and stomach. I may have been unfortunate in my experience, but in every case in which I have given it, this irritation has been complained of. All writers on the subject agree in referring to this irritation as one of its unpleasant effects. The

salicylate of soda seems to give rise to the same disagreeable symptom. Salicin, on the other hand, never gives rise to any unpleasant effects. I have prescribed it within the last year and a half in many different ailments, in doses ranging from five to thirty grains. I am probably within the mark when I say that I have thus given it to at least a hundred different people, and I can not recall a single instance in which any disagreeable effect was produced.

I have myself taken (by way of experiment) three doses of sixty grains—one in the forenoon, one in the afternoon, and one at night—without experiencing the least discomfort; but the smallest pinch of salicylic acid produces in me a feeling of heat and irritation in the throat, while a dose of ten grains gives rise to gastric irritation and a most unpleasant burning sensation in the fauces.

Salicin is a pleasant bitter, and is best given mixed with a little water, flavored with syrup of orange if desired. In adequate doses, say fifteen grains every two hours, it cuts short an attack of rheumatic fever, without producing disagreeable effects. It should be continued in smaller doses during the first fortnight of convalescence.

As remedial agents in acute rheumatism, salicin and salicylic acid seem to be equally efficacious; but the former has the advantage of producing no unpleasant effects. In time, too, it is sure to be much cheaper, a matter of some importance with a large class of sufferers from rheumatism.

Macro-Microscopical Sections of the Brain.

The brain, after removal of all enveloping tissues and vessels, is placed in common alcohol, where it remains about ten days, when absolute alcohol is substituted, to which tincture of iodine is added until the liquid is of the color of Maderia wine. It remains in this solution, which is frequently changed, also about ten days, when it is transferred to a saturated solution of bichromate of potash.

A human brain requires about two years before it is properly hardened, though the medulla, pons with the ganglia attached, and the brain of dogs, monkeys, and the foetal brain may be hardened in three or four months.

To embed the brain in the cylinder of the microtome, it is to be dried and set in the desired position in a warm, flowing mass of stearine, fifteen parts, lard twelve parts, and white

wax one part, melted together. On cooling, it is liable to shrink, and it is well to pour into the space thus contracted a solution of crude turpentine and wax melted together. The basin surrounding the cylinder is filled with water, and the sections are then cut under water. The cut section is placed in water and allowed to remain some hours; it is then removed to a solution of carmine quite free from the odor of ammonia, and after twelve hours it is transferred to water slightly acidulated with acetic acid. After remaining over night in this liquid, it is transferred to common alcohol and then to absolute alcohol, remaining about an hour in each. It is then removed to the glass, and, when the alcohol is evaporated, it is pencilled over with oil of cloves. When this is carefully done, so that there shall be no superfluous oil, Dammar lac is then poured over, and the upper glass adjusted. This should remain level one or two days, then, after removing the old superfluous Damar lac from the edges, a thin layer of melted wax is laid with a brush over the edges, and when cool, over this again, a preparation of asphalt and ether. Dr. Denny added that in his specimens, after the above preparation, he applied also a solution of caoutchouc in chloroform over the edges, and then covered both edges and sides with white wax. Oil of turpentine exposed to the air until it becomes thick may be used to render the specimen transparent instead of cloves. —[*Dr. Denny, in Boston Med. and Surg. Journal.*]

The Crepitant Rale: Its Nature and Conditions of Production.

Read before the Massachusetts Medical Society, June 13, 1876, by W. H. WORKMAN, M. D., of Worcester.

From the time of the introduction into medical science of physical examination of the chest, the crepitant rale has been considered one of the most important and interesting of auscultatory signs, and its nature and causation have furnished an ever-fruitful theme for speculation. Of the various hypotheses put forth to explain this phenomenon, the two which have obtained an especial prominence are, first, that proposed by Lænnec and adopted by Skoda, Barth and Roger, Andral, and others, which ascribes the rale to the bursting of small bubbles created by the passage of air through liquids contained in the air vesicles; and, secondly, that advocated by Carr,

Wintrich, and Parrot, which refers the sound to the sudden separation of the vesicular walls during inspiration, these having been closely applied to one another during inspiration. This hypothesis has of late years steadily gained in favor with the profession, although no very satisfactory explanation could be given of the manner in which the alveolar walls might be brought in contact during expiration. It was not until the recent experiments of Cornil and Grancher upon the cadaver that the truth of this was placed beyond question, and also direct evidence obtained of the *modus operandi* of the forces involved. Without occupying time in discussing ideas now exploded, allow me to call your attention as briefly as possible to the facts bearing upon the ætiology of this rale, and the conclusions to be drawn from them.

By the crepitant rale is generally understood the fine, dry, crackling sound, resembling that produced by rubbing a lock of hair between the fingers near the ear, which is heard under certain circumstances upon auscultation of the chest. It occurs in little puffs or blasts, is not dissipated by coughing, but rendered more distinct by this act, and is perceived only during or at the end of inspiration. This last peculiarity distinguishes it with certainty from the only two auscultatory sounds with which it is liable to be confounded, namely, the subcrepitant rale, and a certain variety of friction-sound, both of which are heard not only on inspiration, but also on expiration.

As regards the anatomy of the lung, it is only necessary to premise that the delicate connective-tissue septa between and inclosing the air vesicles are richly provided with elastic fibres, which pass thence along the bronchial walls to the root of the organ, tending to draw all parts inward upon this point when the expanding force is removed.

If artificial respiration be made upon a cadaver in which the lungs are free from disease, care first being taken to clear the trachea of any mucus or liquid which may have accumulated therein, the respiratory sounds will be found to be the same as in health. If the walls of the chest, including the parietal pleura, be then removed and the lung laid bare, it is seen to collapse in virtue of its elasticity, aided by the atmospheric pressure from without. Artificial respiration being again resorted to, and auscultation practiced with the ear placed near the lung or with the stethoscope, a new sound is heard which could not be detected while the parietes of the chest were intact. After a certain quantity of air has entered the lung, a fine, dry crepitus is perceived, which, although

perhaps somewhat finer and dryer, is otherwise identical in character with the crepitant rale. This continues to the end of inspiration and then ceases. It is not heard in expiration, but reappears with each succeeding inspiratory movement. Cornil applies the name vesicular crepitation to this sound.

It is a well-known fact that in health the lung always contains a certain quantity of residual air, which in the absence of external pressure, serves to counterbalance the elastic contractility of the lung, so that the alveolar walls, although approaching one another somewhat, do not come in contact in expiration. In inspiration no vesicular crepitation can be heard. The same holds true of the cadaver with healthy lungs and intact thoracic walls. So soon, however, as the pleural cavity is opened and the lung exposed to the pressure of the external air, the pulmonary tissue contracts strongly and expels the residual air to such a degree that the alveoli* are effaced and their septa applied closely to one another. The latter are then separated suddenly by the entrance of the air on inspiration, giving rise in each alveolus to a fine explosion, which, being reinforced by similar ones in the neighboring alveoli, occasions the fine crackling peculiar to the vesicular crepitation. Hence the production of this sound in the experiment cited depends on two conditions: first, the abolition of the vesicular spaces and contact of the vesicular walls during expiration; and, second, the sudden restoration of the same to their former state by the penetration of the air during inspiration. Here the first condition is induced by the internal elastic traction aided by the external atmospheric pressure. That the same effect may be caused by intra-thoracic pressure upon the pulmonary tissue will be seen as we proceed. The action of the second condition is well illustrated by the simple experiment proposed by Carr, which consists in pressing firmly together near the ear the thumb and forefinger moistened with some viscid substance and then separating them.

Physiology furnishes two familiar examples of vesicular crepitation, or, as it might with propriety be called, the crepitant rale. When a person during illness or in a sleeping state has for some time lain quietly upon his back, if the first long inspiration thereafter be ausculted, the vesicular crepitation is perceived, ceasing in the following inspirations. Here the

* Whatever is said of the alveoli and vesicular spaces must be understood to apply with equal truth to the infundibula, into which they open. The terminal bronchioles are probably also concerned in the production of the crepitant rale, though this has not been proved.

quietness of the respiration, the weight of the pulmonary tissue, and the immobility of the dorsal portion of the thoracic walls, have caused the collapse of a greater or less number of peripheral alveoli, which expand again in the first full inspiration.

In the new-born infant, auscultation of the first few inspiration by which the hitherto atelectatic lungs are aerated, discovers most strikingly the vesicular crepitation.

In 1872--73, a series of experiments upon the cadaver were performed by Cornil and Grancher in Paris, with a view to determine the causes of the various normal and abnormal respiratory sounds. Of these the two following have an important bearing upon the subject.

In the first experiment a cadaver with healthy lungs was procured, and fifty to one hundred grammes of melted tallow injected into the pulmonary tissue by means of a syringe provided with a small trocar, which was introduced through one of the intercostal spaces in such a way that no air from without was allowed to enter. Care was also taken that the tallow should not penetrate and fill the bronchi, and thus obstruct the passage of the air through them. In this manner a nodule in the lung was formed, solid and impermeable to air. Auscultation over and in the neighborhood of this nodule during artificial respiration revealed plainly, on inspiration, the vesicular crepitation. If the respiration was made slowly, allowing the lung time to retract upon itself, the crepitation was found to be permanent, occurring during each succeeding inspiration or just at its end. The nearer the surface of the lungs the tallow was injected the more clearly could the crepitation be heard, and if the nodule was large it was perceived more distinctly at the circumference than at the centre. The parietes were now removed, and the situation of the indurated mass was found to correspond with the crepitation observed. Auscultation of the uncovered lung showed a similar though still more marked result. In order to assure themselves that the crepitus was not formed in the indurated portion, the latter was divided with a knife, and the inclosed bronchioles, infundibula, and alveoli, seen to be entirely filled with the injection.

In the second experiment the tallow, instead of being injected into the lung, was introduced without wounding that organ in the pleural cavity, forming a hard mass spread out between the lung and the walls of the chest. The crepitation was heard as in the first experiment, over and around the circumference of the injected tallow. The inserting of bits of wood into the fissure between the lobes was found to have the same effect.

The explanation of the phenomenon was as follows. The alveola and infundibula, dilated and filled with the tallow, form

a solid mass within the chest, which occupies the same space during expiration as during inspiration. This is not the case with a similar amount of lung tissue, which diminishes considerably in volume in expiration. Hence, in expiration, pressure is exercised upon the alveoli surrounding the nodule and their cavities are effaced. The succeeding inspiration restores them to their former condition with the production of the crepitus.

Thus it is seen that, in the normal lung, a crepitation can be produced identical in character with the crepitant rale, and like it heard only during or at the end of inspiration; that this sound depends on physical causes, inducing by pressure applied in various ways obliteration of the alveoli during expiration, and permitting the restoration of the same during inspiration.

These facts having been noticed, it remains to consider the diseases in the course of which the crepitant rale occurs. Such are pneumonia, chronic catarrhal, interstitial, and broncho-pneumonia, tuberculosis, hæmorrhagic infarction, pleuritis, tumors, gangrene. Although the pathological processes in the group indicated are so diverse, yet the same final physical result is obtained in all, namely, the formation within the lung or at its surface of a body impermeable to air, and comparatively incompressible, surrounded or bordered by a tissue, either normal or so little changed as to be capable of aeration. This state of things will be seen at a glance to be the physical counterpart of that which may be artificially induced, and which when so induced, gives rise to the vesicular crepitation. We are therefore warranted in assuming the same mode of production for the crepitant rale, the more especially since the latter is absent in those diseases unfavorable to the development of the above conditions. Clinical and pathological observation furnish proof of the truth of this assumption.

In croupous pneumonia, the best authorities tell us, it is not in the first stage, or stage of congestion, that the crepitant rale manifests itself. It is only after exudation has commenced, and groups of alveoli over a space more or less extended have become solidified, as evidenced by dullness and modified respiration. While the solidified portion is yet small, the rale is heard over it or in its immediate vicinity; but as the former increases in extent the latter changes its seat, being perceived only in the circumference or edge bordered by normal tissue. As the exudation at any point becomes complete, the rale at that point is replaced by bronchial respiration. When a whole lobe is rendered solid, the crepitus can be detected only along the line bordering the adjacent unaffected lobe.

The congested condition of the zone of tissue immediately around the indurated part cannot be said to have any direct influence in causing the crepitant rale, since the latter does not occur in simple congestion, or in the congestive state of pneumonia, and the vesicular crepitation is produced without the presence of any congestion whatever. Probably, however, the slight thickening of the vesicular walls incident to congestion favors the rale indirectly by compromising somewhat the vesicular spaces, thus rendering them more easily effaceable, and also serves to make it rather less fine and dry than the pure vesicular crepitation.

Clinical experience shows what would naturally be inferred from what has been said, namely, that the crepitant rale may persist until convalescence is quite far advanced. As the exudation softens and is removed by expectoration and absorption, the tissues again become accessible to the air, and again subject during expiration to compression by the yet solidified portions. Hence the persistence of the rale, and its reappearance in places where it had been replaced by bronchial respiration. But in general the so-called rale crepitans redux of the resolving stage of pneumonia is a subcrepitant rale, heard with both acts of respiration, and due to the action of the air on the liquids contained in the smaller bronchi.

In the pathological changes called broncho-pneumonia, chronic catarrhal pneumonia, interstitial pneumonia, and tubercle, which separately or combined are found in the lung in the disease known as phthisis, if the chest is ausculted in the neighborhood of the indurated foci, provided these be situated sufficiently near the surface of the lung, fine, dry crepitant rales may be perceived. It is seldom that they are heard with the sudden sharp explosion so characteristic in croupous pneumonia, for the reason that the diseased areas are often so small, and shade off so gradually into the healthy tissues, that less opportunity is afforded for the effacement of the alveoli and the sudden restoration of the same. Under these circumstances the rales are usually more or less scattered, and so frequently associated with other sounds of more striking character, that their existence is likely to escape attention if care be not exercised.

Theoretically, hæmorrhagic infarction fulfills better perhaps than any other morbid process the conditions obtaining in the first experiment above quoted. Here a circumscribed nodule of greater or less extent, with sharply defined periphery, exists, solid, inelastic, and immediately surrounded by tissue, which, though congested admits air freely. This case, minus the

congestion, is exactly parallel with that of the suet injected into the substance of the lungs. As might be expected, crepitant rales are heard on auscultation, persisting a longer or shorter time, according to the further changes occurring in and around the infarction. When followed neither by abscess nor gangrene, the rales have been heard for days and weeks.

The second experiment in which the suet was introduced into the pleura finds its pathological analogue in pleuritis, the compressing force in both cases being exterior to the lung. It is only, however, in the last stages of this disease, when the pain which interferes with full inspiration has passed away and the effusion has been mostly absorbed, that the crepitant rale is usually perceived. In this case the moderate remaining exudation or the false membranes covering the pleural surfaces serve in expiration to compromise the peripheral alveoli, which are restored by a full inspiration with the production of a well-marked crepitant rale. Various authors who have recognized this have ascribed it to the friction of the pleural surfaces, but as it occurs only during inspiration such a view is untenable.

In gangrene of the lung the existence of the crepitant rale must be referred rather to the influence of the preceding and accompanying indurative processes, such as acute or chronic pneumonia, hæmorrhagic or metastatic infarction, tubercle, etc., than to that of the disorganized portions. Where the gangrene results from certain influences, causing direct softening of the tissues, it is doubtful if the rale could be perceived.

As regards tumors of the lungs, it is only necessary to say that they are known to give rise to unmistakable crepitant rales, and if there be several tumors in the lungs at the same time the rales will be heard in the corresponding situations.

To recapitulate. The crepitant rale has its seat in the alveoli and infundibula, and possibly also in the ultimate bronchioles, the walls of which have the same structure as those of the air-vesicles. It does not occur in the diseased parts, but in those immediately around remaining nearly or quite healthy. Its origin is purely physical, and is due, first, to compression from without, and, secondly to expansion from within. The compression is produced by adjacent indurations resulting from disease. It makes no difference what the pathological process may be, provided an induration be formed in or at the surface of the lung in such a manner as to give rise to the two above-named conditions in a spot favorable to perception by the ear. Hence, the crepitant rale is peculiar to no one disease, as was formerly supposed, but may exist in several, each having its distinct pathological nature—[*Boston Medical and Surgical Journal*.

Can "Port-Wine Marks" on the Face be Cured? Yes.

By BALMANNO SQUIRE, M. D., Surgeon to the British Hospital for Diseases of the Skin, London.

Few lesions of the skin are more hideously disfiguring than the congenital "Port-wine mark" of the face. I refer to the flat vascular *nævus* which may so often be met with in every country, causing the greater part (often) of one side of the face to present a livid, dark crimson color, and conferring an almost demoniacal appearance of the unfortunate subject of this forbidding deformity. So many adults of all classes of society may be seen going about with this lesion in its pristine condition, that it is clear at once that nothing is commonly contrived for its relief, and a little experience suffices to prove that any attempt at interference with this deformity is commonly regarded by the profession with disfavor. By some, the possibly uncontrollable hemorrhage is the fear entertained, by others, the scar that would ensue from the only means that seems to be free from the objection cited—cauterization—is properly a reason for refraining. However, as I have satisfactorily ascertained, the disfigurement can be removed without leaving any trace of its former existence, or of the means employed for its removal, and that by a very simple, safe, painless, speedy and easy procedure.

For the purpose in view I employ a cataract needle, the head of which is made about four times the size of that of an ordinary cataract needle. With this needle I scarify the affected skin, making cleanly cut and parallel incisions over the affected area, and even also a little beyond it. The incisions are spaced apart one-sixteenth of an inch. In order to render the operation painless, and at the same time prevent any flow of blood interfering with the draughtmanship of the lines, I first freeze the skin thoroughly by means of Dr. Richardson's æther spray apparatus. Having performed the operation over a limited area I press on the scarified portion of skin with the fingers for about ten minutes, gently but firmly. At the end of this time all bleeding has definitely ceased. During the pressure a piece of white blotting paper is interposed between the fingers and the skin. The only styptic I employ is that of pressure employed as above described. As to the depths of the incisions, they should be made of such depths as nearly to divide the entire thickness of the *cutis vera*. Within a fortnight, if deftly performed the

operation has done its work without leaving trace of any kind save a notable and most gratifying improvement. No scars are left by it. However, a precaution needs to be stated. No lateral traction must be made on the scarified skin either during or within half an hour after the performance of the operation. In exercising styptic pressure after the operation, this essential precaution must be kept in view. When, in any case, any traction has been accidentally made on the skin in a direction transverse to the direction of the cuts, they gape slightly in consequence. The gaping cuts become plugged with wedged shaped clots, and, as an invariable fact, indelible linear scars are thus produced. If traction be avoided no trace is left of the operation. Sometimes one operation alone will not suffice, a second or even a third may be required. In such cases the direction followed by the linear incisions of the first operation should be carefully remembered, and at the second operation the parallel linear cuts should be made to cross obliquely the direction of the original cuts, say at an angle of 45° . If a third operation be needed the cuts should again follow a different direction, that is to say, they should cross the direction of the original cuts at right angles.

After the operation any exudation of clot or scab should be washed off carefully the next day by a soft camels hair brush and cold soap and water, followed by a soft piece of sponge wet with cold water only.

The operation conducted as above is absolutely painless. Very slight temporary swelling follows it. No permanent trace is left by it. It does its work finally within a fortnight. No hæmorrhage accompanies it, nor is it attended by risk of any kind. It offers to a number of hideously deformed persons an escape from their misfortune which may be safely recommended, and confidently offered by any practitioner. The results obtained by it are at once gratifying to the practitioner and satisfactory to the patient.—[*Archives of Dermatology*.

Kneading bread, as commonly practiced, is decidedly objectionable at any time, but in warm weather, when the perspiration is in constant flow, it is the undoubted means of introducing into the most universal article of diet loathsome impurities, and, too frequently, the seeds of positive disease, from the body of the person making the bread. How many persons eat bread without so much as knowing who makes it, or whether the maker is infected with disease or not? It is

not a pleasant consideration, but an important one. In the hard exercise of kneading bread and pastry, perspiration, with all those impurities which it is designed to carry off, are constantly exuding from the skin, and are mixed with the bread. It is no security that the hand is externally clean. The cleaner the skin the freer the perspiration. What ill effects result and what diseases are communicated in this way can be learned only by experiment and close observation. But that impurities of the blood are worked off through the skin, is a fact so well recognized that specific diseases are treated by this means, and it is even proposed to eliminate from the system the virus of hydrophobia by a process of sweating. The pores of the hand are more open than those of many other parts of the body. The constant perspiration of the hand in warm weather, even when unexercised, will remind every one of this fact. When the hand is exercised it perspires freely, and physicians especially generally understand the danger of introducing putrid exhalations into the system, in ever so small a quantity. May we not hope the time is not far distant when other and more cleanly, as well as safer means of bread making will be universally adopted?—[*The Sanitarian*.

Two years ago we were called upon to prescribe for a woman who had a syphilitic eruption on both arms. On inquiry as to her employment, she said she was engaged at paring fruit in an establishment where canned fruit in large quantities was put up for sale. She was informed that it would be much better for her arms to obtain another situation, but for a' that we never see canned fruit on a grocer's shelves without remembering our patient with the sore arms and cogitating as to whether she pared any of that fruit. The occasion was productive of a delicacy of appetite, in at least one person, for canned fruit, that did not exist before that poor woman's visit.

My friend, Dr. William Bunce, of Oberlin, Lorrain County, Ohio, sends me for examination a curious specimen, having the following history: Some fifteen or twenty years ago a Dr. Campbell, living in Huron County, was speculating in sheep; slaughtering them for their pelts and tallow. In one of these, embedded in the leaf or kidney tallow, he found this specimen. The widow of this physician had preserved it with great care,

since he prized it so highly, and presented it to Dr. Bunce, as her family physician.

On opening the box containing it, we see that our curiosity presents a striking resemblance to the left hand of some chubby little infant: this resemblance is heightened by a bracelet of ribbon which some one has placed around the—we suppose we must call it—wrist. A closer inspection reveals that the material composing it is simply firm mutton tallow; that the fingers are pretty much of an equal length, and, unlike an infant's fingers, of the same size throughout, except the little finger, which tapers abruptly at the end; there are no nails or anything resembling them; no wrinkles or dimples; the thumb looks as though it had been amputated at the metacarpo-phalangeal articulation; the radial border of the wrist, instead of being on a line with the outer border of the index finger, is on a line with the centre of the middle finger; and, finally, on looking at the under surface, we find all resemblance lost, and only a mass of tallow.

While its resemblance to a hand is not startling, it is sufficiently decided to make the specimen well worthy of preservation as an example of the so-called "freaks of nature."

Some who have examined it have questioned whether, like the celebrated mandrake root in one of the London museums, it has not been "doctored." Although the imagination of the discoverer may have been highly creative, still the resemblance once mentioned and *the ribbon tied on*, others will not fail to recognize it. In this respect the case presents the same features as have all the cases of "strawberries," "snakes," and other "mother's marks" I have ever examined. If Tom discovers a resemblance, it is at once recognized by Dick and Harry, and all points of dissimilarity are either lost sight of or ignored:

"*Hamlet*—Do see yonder cloud that's almost in the shape of a camel?

Polonius—By the mass, and 'tis like a camel indeed.

Hamlet—Methinks it is like a weasel.

Polonius—It is backed like a weasel.

Hamlet—Or like a whale?

Polonius—Very like a whale."

[*Ohio Medical Recorder.*

But then, you know, it is a historical, if not physiological, fact that "Mary had a little lamb."

The Indications Afforded by the Pupil.

Numerous and valuable as are the indications furnished by the pupil, its condition does not receive from many the attention it demands. Most of us have certain vague notions on the subject, and all are aware that the pupil is liable to alterations in certain diseases. But a systematic arrangement of its deviations from the normal standard, with explanations of their causation, is still a desideratum. The subject is one of great intricacy, for the behavior of the pupil is sometimes paradoxical, and frequently it is difficult of explanation.

The small pupil of plethora and the dilated pupil of anæmia are constantly impressed on our notice, and appear to find simple and sufficient explanations in the fulness of the vessels and the quality of the blood. If we purge the plethoric patient, his pupils enlarge; and we estimate the anæmic patient's progress towards recovery by the diminution in the size of his pupils. Apart from general constitutional states on which it may depend, a contracted pupil indicates cerebral hyperæmia, whilst a dilated pupil affords the most valuable sign of cerebral anæmia. Thus the small pupil of the "ferrety eye" of typhus is aid to diagnosis and a good indication of the engorgement of the encephalic centres. Again, contrast the small pupil of mitral regurgitation with the dilated pupil of aortic insufficiency. In the various affections in which the pulmonary circulation is embarrassed, the small pupil attracts attention no less than the lividity of the lips and the turgescence of the cheeks. So much is myosis an indication of venous engorgement in capillary bronchitis, pulmonary œdema, and the like, that the degree of the one may be estimated by the degree of the other, and it is observed that, if the livid patient with contracted pupil be bled, the pupil dilates as the blood flows. As a rule, the condition of the pupil may be taken to indicate the state of the circulation, perhaps more in relation to fulness of the vessels than to actual blood-pressure. Some of the observations, however, on this point appear contradictory and require investigation.

In connection with nervous affections, the pupil has long engaged attention, and the older physicians carefully noted its behavior in certain diseases. In the various forms of meningitis and cerebritis, where there are signs of cerebral excitement, the pupil is small. But as stupor supervenes on excitement, the pupils become oscillating and dilated; and if this passes into profound coma, they are found widely dilated and immo-

bile. In epilepsy, too, the different stages of the paroxysm, and the condition of the circulation which accompanies or causes them, find an exponent in the state of the pupil. A transitory dilation of the pupil is amongst the most valuable signs of an attack of *petit mal*. Again, in distinguishing between feigned and real convulsive seizures, the pupil serves the physician as a valuable guide. In the apoplectic patient, pinhole pupils enable the physician to locate the hæmorrhage in the pons Varolii; whilst great dilation of one pupil occurring coincidentally with hemiplegia of the opposite side is an indication of a lesion of the crus cerebri of the same side as that on which the eye is affected.

In aneurism of the aorta, the attention of the physician is sometimes first directed to the patient's malady by a difference in the pupils. In some diseases of the spinal cord—in locomotor ataxy especially—the pupils are almost habitually contracted. In the practice of the alienist the greatest value is attached to the state of the pupil, and he is almost able, for purposes of treatment, to classify his patients by his sign alone. In toxicology it serves as an important means of distinguishing between many poisons; and oftentimes the analyst makes use of the pupil in testing for some of the alkaloids.

But not only is the pupil of great service as a clinical guide—especially as a hæmadynamometer—but it has been recently shown that in it we have an instrument of the greatest scientific precision for testing sensibility. By its employment as an æsthesiometer results have been obtained which other instruments of research have failed to reveal. Heidenhain, Meischer, Dittmar, and others, have shown that irritation of a sensory nerve is followed by a rise of blood-pressure, and have employed arterial tension in this way as a test of sensibility. But Fox and Schiff have demonstrated that in the pupil we have a test of far greater delicacy. They have shown that in the curarised animal, kept alive by artificial respiration, each irritation of a sensory nerve is followed by dilation of the pupil. This occurs not only when the effect is painful, but as the result of a simple tactile sensation. Simple pressure on the integument is sufficient to cause dilation of the pupil; and if the skin, rendered pale by pressure, be again touched, the pupil dilates still further. By this method they have ascertained that there is no portion of the body which is not possessed of feeling in this sense. In comparison with the blood-pressure, they show that dilation of the pupil follows upon excitation, before its effects can be observed in the circulation, and that a tactile sensation too feeble to evoke a rise

of blood-pressure causes an alteration in the pupil. In the dilation of the pupil is afforded an indication of such sensation having reached the brain, whereas an alteration of the blood-pressure may be effected without any such consciousness, its effects being expended on the spinal cord and medulla. The proof of this assertion is afforded by the effect of electrical excitation. If a current be applied to the anterior or lateral columns of the cord, there follows an increased blood-pressure, but no dilation of the pupil. The reflection from sensory nerves to motor nerves takes place in the cord, from sensory nerves to the pupil of the brain. In accordance with these facts the condition of the pupil has been proposed by Budin and Coyne as a guide in chloroform narcosis, but in this condition it affords neither safe nor satisfactory indications.—[*Medical Examiner*.

Sending Plants to Sleep.

Several members of the Parisian Biological Society have recently been engaged in a series of experiments which seem to prove that everything endowed with life, whether animal, plant, or ferment, is susceptible of being brought under the influence of anæsthetics—in other words, may be sent to sleep. It has been proven that the influence of anæsthetics extends to all the animal tissues, and last of all to the central nervous system. Hence, it was argued, plants having tissues must also be subject to the influence of ether, &c. Experiments prove this to be the case. Germination is arrested by anæsthetics. The water-cress, for example, germinates within thirty hours. Ether arrests germination in this plant, but does not destroy that faculty. It merely sends the plant to sleep, for germination recommences as soon as the use of ether is suspended. But the sensitive plant furnishes a still more striking illustration. Its sensitive faculty is rendered completely dormant by etherization, while the other living properties remain unaffected. On suspending the action of ether, the sensitive faculty of the plant is quickly restored. This capability of being sent to sleep is not confined to plants; it extends to ferments. Thus the ferment of beer, when submitted for twenty-four hours to the influence of ether, becomes perfectly dormant, but recovers its activity as soon as the anæsthetic action is suspended. In future the practical botanist must not pursue his cruel rambles without the assistance of one of the Clover family.—*Med. Ex.*

The Pathogenesis of Lead Paralysis.

DR. ERNST REMAK.

The author gives first a brief review of the various opinions in regard to the seat of the lesion in lead paralysis, whether in the muscles or nerves. Rejecting the theory that the origin of the disease is to be found in the muscles, he refers it to the nervous system because the reaction of the affected muscles to electricity is the same as is found in peripheral paralysis due to lesions of the nerves. Several cases are detailed at length in which the upper extremity was affected and two in which the lower were paralyzed; with these are compared cases of infantile paralysis. From the similarity in these two classes of disease in the reaction of the muscles to electricity and from the fact that those muscles are chiefly affected which act together, and not necessarily those which are supplied from the same nerve, he concludes that the primary lesion must be in the spinal cord in lead paralysis as in infantile paralysis. The peculiarity that the supinator is not affected, while the other muscles supplied by the radial have lost their electrical irritability is explained by the origin of the supinator from a different group of nerve cells in the cord near the origin of the biceps and brachialis internus. The level at which the nerves arise, which form the brachial plexus is given approximately, the lowermost is the ulnar, then arise the median, musculo-cutaneous, axillary, radial; but individual fibres may run in nerves whose remaining fibres arise from a different level. The examination of the question is very imperfect in regard to the lower extremities, owing to lack of data, but it seems to the author that there is sufficient foundation to form a satisfactory conclusion in regard to cases of saturnine paralysis affecting the upper extremities, that the anatomical lesion is in the anterior columns (cornua?) of the spinal cord somewhat above the upper end of the cervical enlargement.—[*Archive fur Psychiatrie u. Nervenk* vi., p. 1. *Amer. Psychological Jour.*

“Advanced Thinkers.”

That single expression—advanced thinkers—will do more to establish theories and doctrines, and practices also, than learning and experience and wisdom combined. Let a man who differs from the mass be pronounced by common consent an advanced thinker, his fame is established, no matter how

extravagant his notions. To say that a man is an advanced thinker, means, as a general thing that he don't think at all, but is captivated with some popular idea or some popular scientist, or that he aspires at notoriety by identifying himself with such. Time was when advanced thinking was a dangerous business, which men did not dare except under penalty of martyrdom. Now it is the reverse. Advanced and original thinkers are really but few, and their advance is often more apparent than real. They often but exhume the old and instal it as new. Our age has much need of individual and independent thought. Men are afraid to hold fast to the past or the present in view of anything claiming to be in advance. It is so in theology, in general science, in medicine. Better maxim than this was never uttered: "Prove all things—hold fast to that which is good."—[*Pacific Medical and Surgical Journal*.

Pharmaceutical Chemicals at the Centennial.

Chemists, students, teachers, and all persons interested in the arts, and in the chemical industries and products, as represented in the Exhibition, can not fail to be proud of the display in this department by the chemists of the United States. Among the 587 exhibitors of the various classes of Chemical Products, a Boston house makes an exhibit which, for beauty of arrangement, variety, and costliness of the products, can scarcely be equalled, and is creditable not only to Boston but to the whole country.

Upon a triangular space, 16 by 17 feet, in the main exhibition hall, is erected a unique and elegant stand over 20 feet in height, which at once attracts the attention of the visitor to the Exhibition. Approaching nearer to the exhibit we see the name of the house, Billings, Clapp & Co., Boston, upon a groundwork of black velvet, in letters eight inches in length, each letter consisting of beautiful crystals of Bromide of potassium. In front may be seen several large glass cases, one octagon in shape, containing large crystals of nitrate ammonia, weighing over 150 pounds each. Upon shelves are arranged more than sixty specimens of the products of their laboratory, in glass jars, some of which have the capacity of a barrel, the largest ever made in this country. The only specimens of Propylamin and its compounds in the Exhibition are found upon this stand, and some idea of the rarity and costliness of this article may be obtained from the statement that the

contents of three bottles are valued at more than \$2,000. They have also a jar of the capacity of twenty-five pounds, filled with carbolic acid, of perfect whiteness, and the largest specimen to be seen in the Exhibition. We notice particularly a jar of citrate of bismuth; also, fine specimens of citrate of iron and bismuth in scales, sulphite of sodium in crystals, the various preparations of gold and silver used in photography, salts of bismuth, iron, lead, mercury, etc., etc.

It is evident to all competent to judge that we have in New England manufacturers who can successfully compete in pharmaceutical chemicals with any house in the United States, and whose products compare favorably with those of any other country.

ABSORPTIVE POWER OF MILK.—Attention has been called in the daily papers to a practice prevalent in some parts of the country, which appears to illustrate the power possessed by milk of absorbing atmospheric impurities. It is that of placing a saucer of new milk in a larder to preserve meat or game from taint. It is said that not only does it answer that purpose, but that the milk, after a few hours, becomes so bad that no animal will touch it.—*London Lancet*.

Nitrite of Amyl.

This agent appears to be growing into favor among practitioners on both sides of the Atlantic. It is employed to a considerable extent in the asylums in America in the treatment of the epileptic insane. In nearly all the cases where the paroxysms are foreshadowed by an aura or any other premonition, it is effectual in preventing the attack. The epileptic wards are described as having been "revolutionized" through this agency. It has been used in asthma, angina pectoris, and dyspnoea from various causes. There appears to be very little danger from it under any ordinary circumstances. Anemic persons require a larger quantity and should use it with more care. Dr. Squibb says he was exposed to its vapor to an unusual extent in consequence of the breakage of a pint bottle, and the necessity to remain and exert himself in an atmosphere heavily charged with the vapor in order to prevent an explosion which was imminent. The feeling of swelling of the head and body, and a sensation as if about to fall, were extreme for a time, but passed off without ill effects. The sensorium was

clear during the whole time. Nitrite of amyl is administered in the same manner as chloroform. The most popular method is to inhale from a small vial, the mouth of which is applied to one nostril. One to three full respirations are sufficient. Asthmatics and others often carry it in the vest pocket to use in emergencies. It requires a glass stopper.—[*Pacific Med. and Surg. Journal*.

Proceedings of Societies.

LOGAN COUNTY MEDICAL SOCIETY.

Reported by H. C. BUTLER, M. D., Secretary.

The Logan County Medical Society met July 11th, with Dr. Scarff in the chair. The minutes of previous meeting read and approved.

Dr. Cletcher read an interesting paper on the pathology of inflammation of the internal ear, and the great importance of its early diagnosis. Upon motion he was requested by the society to have it published in the Cincinnati LANCET AND OBSERVER.

Dr. T. L. Wright then read a paper upon the importance of investigating certain natural phenomena with a view of ascertaining the bearing they might have in the causation of disease. In the course of his paper he said: "Respecting the causes of disease, our knowledge is unsatisfactory and very defective. We know something of cold, of moisture, of contagion, and many other agencies; but what can we say of that transcendent power which at once holds the smallest atoms in position, and sustains all the myriad worlds in space in harmonious relation one with another. That agent which lives in the shining surface of the mariners needle, and extends from planet to planet reaching the remotest star in the firmament, and preserving in even balance all things whatsoever. What do we as medical men know of magnetism? The decennial magnetic storms, coincidental with the eleven year periods, when the number and size of the sun's spots become chiefly noticeable, and well known, but their influence upon disease has not been studied. The intervening magnetic storms, not necessarily affecting climatic changes, which are consequent upon accidental disturbance within the sun's atmosphere are also well known, but their influence, and the influence, in fact, of great and commanding magnetic changes, upon the causation of disease, particularly the diseases of that organ especially susceptible to magnetic influences, the brain, are not understood, or even recognized. May not the terrible brain

diseases sometimes epidemic have some such far distant origin? May not impaired molecular changes, resulting in blood diseases, and even contagious diseases at times, have their fountains in impaired nervous power, which, in its turn, may be traced to magnetic influence derived from fearful disturbances in the gasses surrounding the sun?

Again, what are the effects of the superabundant *yellow light* which is said to prevail about the month of August, upon health and disease? Are the peculiarities of summer and autumnal diseases attributable in some part to those yellow rays? The fact that varieties of action in the rays of light will give rise to sundry different sensations, causing separate and distinct perceptions of red, orange, yellow, green, blue, indigo and violet, in the solar spectrum, proves that these varieties of motion constitute an element imparting a distinctive property to each of the separate colors in the spectrum. Hence we have not only different optical sensations to which certain names of colors are given, but there are other specific properties possessed by the different colored rays besides that of depicting a color upon the retina. What effects do the yellow rays produce in summer upon vegetation, and what upon animal vitality? If there is a superabundance of yellow light in the summer we would expect an extra amount of organic disintegration, since organic substances abound at that period of the year. But what are the actual facts in the case, and can any practical application of these facts be made to advance medical knowledge.

There is another question upon which scientific men will be expected to furnish information. The fire question. As wood and coal become scarce can a fire famine be arrested? Can galvanism be made efficient in affording heat when the necessity arises? Can the action of batteries and metals supply the place of carbon in producing heat? We know that galvanism in a condition of high tension, "upon the current being sent through five metallic wires, or slender pieces of plumbago, or compact charcoal, these conductors become intensely heated. The wires of the most refractory metals are fused; and a vivid white light appears at the points of the charcoal, equal to the light of phosphorus burning in oxygen." These phenomena may occur in an atmosphere void of oxygen, and hence can not be called combustion. This heat is generated when the galvanic current passes through conductors *with difficulty*. In this connection I may mention that the aurora of August 28th, and September 2d, 1859, affected the telegraphic wires to such an extent that paper and gum wood were set on fire. Does it not seem possible that the magnetic forces derived from the sun as in the instances of the aurora just cited, might be made available for the purpose of generating heat for domestic and economic purposes? could not the heat generated by the electric current be made to traverse conductors surrounded by some bulky material, which becoming heated by this means will possess the property of radiating heat.

The types of disease change from period to period, as well as the actual kinds of disease. There is some cause for this, and some laws governing the phenomena. The actions of remedies are also variable at divers times. Certain drugs are useful at some periods, and useless at others. Altogether showing a period of cycles in certain constitutional conditions of the human system in health and disease. The fact respecting the types of disease is incontestible. Those bearing upon the action of remedies, are equally well established. The periodical changes in the nature of diseases and action of remedies, may be related not only to the eleven year period of the sun's spots, and the consequent magnetic disturbances; but there are other magnetic periods, as the second year period, or maximum period of auroral display, with its middle or ten year display. Also the $59\frac{1}{2}$ year greater maximum auroral display connected with the slow movements of certain planets occasioning solar disturbances. This brings us near to the old doctrine of astrological influences; but it does more, it accounts for these influences; taking away those supernatural pretensions.

Investigations on these subjects should be made under the auspices of a permanent scientific institution so that the indispensable element of long time may enter into them, a thing impossible with investigations of solitary observers.

After some further business the society adjourned to meet the second Tuesday in August.

REPORT OF THE MEDICAL ASSOCIATION OF DELEWARE COUNTY, O., July 11, 1876.

Reported by F. W. MORRISON, Secretary.

The Association met, President Welch in the chair. There being no report from either Standing or Special Committees when called for, the subject of Dysentery was introduced. First to make remarks was Dr. Blymyer, who referred to the treatment, and recommended opium and mucilaginous drinks, also advised cold water injections. Referred to a mixture used many years ago when he practiced in Richland County, which obtained quite a notoriety. It consisted chiefly of a solution of epsom salts.

Dr. Cummins—The treatment depends upon the character of the case, has faith in dovers powder and sub-nitrate of bismuth. Calomel also is good to act on the secretions.

Dr. Dumm—Has had dysentery himself twice, and would treat the disease mainly by opium. Has been quite successful with this remedy, and considers it indispensable in quieting paristaltic action, and in this way allaying irritation, from which a morbid action is kept up.

Dr. Homs—Has had two cases of bloody dysentery recently,

used rhubarb and calomel, frequently combined with opium; also gave quinine in these two cases with good results. Has given chloroform in drachm doses, diluted with water, which proved beneficial. Believes there is often a torpid condition of the liver in this trouble.

Dr. McIntyre—The pathological condition in dysentery consists in an irritated condition of the secretions, with a torpid liver, caused at times by hot days and cold nights. Would use, at first, as a remedial agent, mild purgatives—castor oil and turpentine are good—has frequently used a combination of rhei, soda and peppermint. In using opium, often combines it with dover-powder; thinks fomentations can be very profitably applied to the bowels, as a local remedy.

Dr. Young—My usual custom is to use gentle cathartics, and prefers sulph. mag. in drachm doses. Have been quite successful in the use of this salt. Treated twenty-two cases during a run of dysentery in my practice, and all did well. I would use opium moderately and quinine if I suspected malarial trouble.

Dr. Little—I endorse many of the methods referred to. Would prefer salts to oil. The main point is to subdue pain. Perfect quiet is absolute,—and would instruct the patient to resist pain. The bulk of dysentery is of a malarial origin.

Dr. Constant—Does not approve of astringents, but believes in salts as a laxative, and would not use opium persistently, but as a palliative prefers the mild cathartic treatment, as a means of removing the irritating injeſta and fœcal masses. When using injections, prefers starch water and tinc. opii.; in the majority of cases quinine is good. Many cases called dysentery require little or no treatment except to regulate the diet.

Dr. Hyatt—Would use sulphuric acid in small doses. Other rémédies, as sulphate of magnesia; opium is highly necessary at times. In the treatment of this disease, I consider rest of first importance. It is a specific form of inflammatory action. [The doctor then gave, at considerable length, the difference between enteritis and the inflammatory process in dysentery, entering largely into its pathology.

Dr. Welch—You may control pain, but you can not control the inflammation by pouring in opiates. It is better first to open the bowels, to remove irritating fœcal matter. Calomel, followed by sulphate of magnesia is good—the former acting beneficially on the secretions. When the canal is relieved of painful injeſta, astringents are beneficial.

Dr. White—I think opium the sheet anchor. Have had at times an extensive practice among dysenteric patients, used oil, as a laxative, with a persistent use of opiates, seldom ever failed to bring about a decided change for the better. I repeat that opium is the chief remedy in my experience.

Dr. Carrothers—Suggests that a correct pathology of dysentery might aid the treatment. I have used salts in combination with

morphia quite successfully. When using injections, those directed to allay pain are the most important. The good effects of cathartic treatment is to be expected chiefly in first cases. In protracted ones, its lasting effect is not to be relied on. Our efforts ought to be directed towards supporting the rapidly failing strength and nutrients are indispensable.

Dr. Coomer—The first object is to evacuate the bowels, then astringents would be indicated, but the previous condition of the patient is to be looked to, in arriving at a correct treatment.

Next was a paper, by *Dr. Coomer*, on the "Emaciation of Pulmonary Tuberculosis," the Doctor dwelling largely on the physical signs of this disease in its incipency and in the advanced stages.

After a discussion of the paper, and a variety of other business was transacted of a local character, the association adjourned.

CINCINNATI, O., Aug. 16, 1876.

J. C. CULBERTSON, M. D.: DEAR SIR: In the report of the proceedings of the Cincinnati Medical Society, published in the August No. of the *L. & O.*, the remarks commencing on page 729, fourth line from the bottom, should have been credited to *Dr. Hough* instead of to *Dr. Mackenzie*. The paragraph credited to *Dr. Murphy*, on page 730, was also a part of *Dr. Hough's* remarks,

Yours truly,

B. STANTON.

Reviews and Notices.

Materia Medica and Therapeutics. By ROBERTS BARTHOLOW, M. A., M. D. New York, 1876. D. Appleton & Co.

The past few years have been prolific in works on *materia medica* and treatises on *therapeutics*. In addition to numerous French and German works in this special department, we have also had a generous supply of English literature, as witness *Stille*, that most excellent and readable book, and the valuable works of *Garrod*, *Ringer*, *Waring* and *Wood*. Experimental physiology and medical chemistry are constantly developing new facts and a multitude of theories. New remedies are discovered daily. New compounds are dispensed hourly. This necessitates a frequent revision of the pharmacopœias and older medical text-books, and it is for this reason that all new books on *materia medica* and *therapeutics* are eagerly sought after and consulted by those of the profession who expect to keep up with the times, and who wish to glean the latest information regarding the action of new medical

agents on disease. Works on *materia medica* are necessarily compilations. Very few writers on this branch of medicine can claim to have been great original investigators, for as quaint old Burton, in his *Anatomy of Melancholy*, hath it: "*They skim off the cream of other men's wits, pick the choice flowers of others tilled gardens to set out their own sterile plots.*" Even though this be the case, the compiler of a good work on *materia medica* deserves great credit for the time, labor and research involved in collating and arranging a mass of information, and placing the same in such a convenient shape that one may read and digest as he runs. A good compiler of medical truths becomes, therefore, an honor and benefactor to his profession.

Heretofore, authors on this subject have been content, as a general rule, to give the opinion of others, without hinting, in their preface, that the writers have been great original investigators and original discoverers; although it may, possibly, have happened that such writers may have had some *personal experience* with the remedies they describe. Perhaps the indulgence of such modest eccentricity has been influenced by feelings of diffidence, or an inborn sense of native honesty, acuated by either motive, it matters not which, all authors, up to the present time, have calmly, and without making any great *personal pretensions*,

"Spread twilight knowledge over all the isles;
And, Luna-like, their *borrowed* beams bestowed."

The world is changeable, however; innovations on old established usages and customs are becoming quite common, so, perhaps, one should not complain. Ever and anon some new star flashes out on the medical firmament, and for a moment we are dazzled by the appearance of what seems to be a planet. When viewed from a critical observatory, through a keenly analytical telescope, this brilliant object most often comes to disappear in a short space of time in the nebular haze of obscurity. Its reflected light, however, has left a pleasing, though momentary, impression; it has answered its purpose; it has fulfilled its destiny. The musty and antiquated tomes of ten, twenty and one hundred years ago, lie moth-eaten and dust-covered on neglected book shelves—the *materia medica* of the past. The world revolves and we progress, only the works of genius survive the present. Many good books on *materia medica* have been written, few great ones, in this country, we can recall but one, that of Stille. Originally

written in 1860, its later edition even outrival the earlier ones in popularity. The secret of Stille's success has been this: Its author had *no personal ends to subserve*, he dealt solely in facts, ignoring altogether the fiction of theory. Founded on the information *deduced from rational empiricism*, this work has stood the attrition of time, and bids fair to be the standard American text-book for years to come. It is a master-piece; a monument to the memory of its erudite and illustrious author.

In the preface of a recently published work,* the author says, by way of semi-apology: "There are a number of excellent treatises upon materia medica and therapeutics, yet, in various attempts at *original research*, as well as in the ward and the lecture room of a hospital, I have keenly felt the want of something more," of course we all appreciate what this "something more" is to be, when the genial author smilingly presents *his own* book on the subject.

In a still more recent work† (the one we are about to review) another author presents his apology, as follows: "It may well be inquired why I have ventured to add a new book to those already existing in this department of medical knowledge. A belief, which I trust will not be regarded as egotism, that *I have earned the right* to address the medical profession, has moved me to the preparation of this work. Several years a teacher of materia medica and therapeutics, I have necessarily formed opinions as to the kind of information which should be contained in a treatise on this subject." It is only natural to suppose that the later author has embodied in his *own book* "the kind of information which should be contained" therein. In other words, both our authors desire to impress upon the general profession their *personal experience* in the use of remedies, as well as to report therapeutical knowledge obtained by them through physiological experimentation. If either of our authors have been *great discoverers* in the field of experimental investigation, it is only a matter of time until their claims for *honor* shall be satisfied. No two men, speaking the English vernacular, have done more for materia medica and therapeutics, of late years, than Anstie and Ringer, and we fail to recall an instance in which either of these investigators was so indelicate as to indulge in philautianism, if we may be allowed to use such a word. "True merit is always modest," is an old axiom and a good one. In *contra distine-*

* Treatise on Therapeutics. By H. C. Wood, Jr. Phila., 1874.

† A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow. New York, 1876.

tions to the two prefaces just quoted, and by way of gentle criticism, actuated by the kindest of motives, we may be allowed to use the following extract from Stille's modest preface: "Our knowledge of the usefulness of medicines rests altogether upon experience, *but not upon that of any one man*, however skillful, or of any age however enlightened; their efficacy is attested by a multitude of witnesses, and is confirmed by time, which reduces the opinions of individuals to their just value, outlives the fashions of the day, and is *un*moved by the prejudices of the schools. To experience we must turn as the ultimate and decisive arbiter of all questions respecting the curative virtues of medicines, feeling assured that whenever the particular application of a remedy can be sustained by the testimony of the great physicians of successive ages, our employment of it possesses the highest possible sanction.

In this conviction the reader of the present work will, it is hoped, find a motive and a justification for the citations and references with which it abounds. It would have been a *lighter task*, by far, to rest the recommendations of particular remedies and methods of cure upon principles deduced, with more or less plausibility, from their *supposed mode of action*, and from the intimate pathological conditions for the removal of which they are presumed to be adopted. But as all such principles, when brought to the test of experience, have proved to be fallacious or insufficient, it was judged that a laborious comparison of actual results would compensate by its real utility for the exclusion of speculations, which tend more to gratify an authors vanity and flatter the readers fancy, than to promote sound learning, or render the treatment of disease more intelligible and successful." Let the reader compare the three prefaces, and draw his conclusion as to which author is most to be trusted.

We are aware that it has become the fashion, among latter day American and German writers, to sneer at what is called rational empiricism. Says Wood: "Experience is said to be the mother of wisdom. Verily, she has been in medicine rather a blind leader of the blind." Says Bartholow: "As respects the therapeutical application of remedies, I have, as far as practicable, based them on the physiological action." Both authors exhibit a marked preference for physiological experimentation, in order to determine the therapeutic value of remedies. It is not likely that the profession will throw aside all that it has learned by experience upon the mere *ipse-dixit* of one or a dozen men. The merits of opium, cin-

chona, mercury, arsenic, iodine, and a thousand other valuable remedies, were known long before the advent of the experimental physiologist. The practitioner, at the bedside of his patient, suffering from a quotidian intermittent, does not care to indulge in medical metaphysics, as to the supposed action of quinine on the disease under treatment; he administers the remedy simply because experience has taught him that it will "break the chill." His conclusions are deduced from rational empiricism; he cares not what the action of quinine may be on the capillary circulation of a dog's caudal appendage, and that that useful article may cease to wag under the influence of the drug; he cares not that quinine lessens reflex action in the frog and curbs the hopping propensity of the innocent bacterian. No! He leaves that all to the speculative medical experimentalist. Partaking of Niemeyer's opinion, that little or no service has been rendered to medicine by the unique experimentalisms of the *great original* investigators of the present day, our common sense practitioner falls back on *experience*, and can show as low, if not lower, rate of mortality in his private practice than his more highly scientific brother. What's death to dogs, cats, rats, rabbits and frogs is often death to the unfortunate human subject. Renouard, in his "History of Medicine," quotes the following lines from Dezeimeris: "Intermittent fevers are cured with cinchona. Several hundred volumes have been written to explain the *modus operandi* of this marvelous remedy. This whole enormous aggregation of science is not worth the following line, and does not go beyond it: *For intermittent fever give cinchona*. Opium procures sleep. A multitude of very learned writers have explained the action of this precious drug. Moliere, in this respect, knew as much as can know to-day, those who have studied all these beautiful works. *Opium facit dormire, quia in eo est virtus dormitiva*. Let no one consider this a detraction of medicine, for it is the *art of curing, and not the art of explaining cures*. A practical notion, well established, possesses no less dignity than a scientific principle."

In his attempts to solve mysteries, known only to the Infinite, the modern speculator makes bold assertions, not guaranteed by a single fact, and with an audacity unparalleled, will, no doubt, shortly give the medicinal effects of religion on the human soul, describing the essence of the vital spark, its chemical constituents, and number of newly discovered elements contained therein. His task is as hopeless a one as that of the infant trying to grasp the crescent moon to see what makes it shine.

We trust we are not severe. Willing to accord merit where merit is due, willing to accept facts founded on truth and reason, we are *unwilling* to give credence to every *individual* statement, or to believe in the *personal experience* of any single individual. These remarks are not especially intended for any particular author, but merely as a protest against what seems to us to be a growing disposition, on the part of certain modern medical writers, to manufacture cases and facts, and to ignore the truth when it interferes with a pet theory. On the table before us lies the new book on therapeutics and materia medica; it is the *latest*, and we propose to briefly review it. The preface of the book consists of only two pages, signed with the name of the author, following this comes a well arranged table of contents of five pages. Part first of the book (proper) is headed "A Treatise on Therapeutics," following this the word "Schema;" the use of this word may strike the reader as slightly pedantic, and as being a piece of affectations; however, this is hypercriticism.

"Part 1st. *Modes in which medicine are introduced into the organism.*

Part 2d. *The actions and uses of remedial agents.*

Those used to promote constructive metamorphosis.

Those used to promote destructive metamorphosis.

Those used to modify the functions of the nervous system.

Those used to cause some evacuation from the body.

Part 3d. *Topical Remedies."*

This scheme bears a striking similarity to that used by Kohler,* in fact, it is an identical one. Says our author: "In this scheme the action of the medicine is followed from its introduction into the stomach, to its exit through the organs of excretion."

"Part I. Routes by which medicines are introduced into the organism. 1st. *Through the external integument.*" The author gives a clear and concise description of the enepidermic, epidermic and endermic methods.

"Part II. *Through the internal integument.*" The author describes, briefly, the different forms under which medicines are administered, as in powders, pills, mixtures, extracts, capsules, troches, wafers, suppositories, clysters, enemas and lavements. This portion of the work we like for its simplicity. Most writers on the subject are too profuse, as wit-

* Handbuch der Physiologischen Therapeutik und Materia Medica. Hermann Kohler. Gottingen, 1876. Pages 33-34.

ness Husemann,* whose detailed and lengthy descriptions become wearisome.

“Part III. *By the sub-cutaneous areolar tissue*—the hypodermatic or hypodermic method.” The author, after giving some really valuable advice, informs us that, “It is not necessary to follow the advice of Wood, the discoverer of the hypodermic method, who advised that the solution be inserted at those points where pain can be awakened by pressure.”

Part IV. *By the veins.* The author gives an interesting but brief statement regarding transfusion of blood; also, some facts regarding the introduction of aqua ammonia into the veins of patients suffering from snake bites. We regret that he has not had the generosity to refer to the experience of Dr. Sittel's, of Cincinnati, (his townsman) who has employed transfusion in a number of cases, and published the results of the same.

Part V. *The actions and uses of remedial agents.* Those used to promote constructive metamorphosis. Aliments. Discusses at some length the different aliments. Much information can be derived from the perusal of this portion of the book. Following the plan of Ringer,† our author discourses briefly on hydrotherapy. We have read better articles on this subject. *Pepsin.* The author whose fondness for the use of the hypodermic syringe is manifested at all points in his book, advocates (following Thiersch); the hypodermic use of pepsin in morbid growths. *This is bad advice*, for, according to Trousseau and Pidoux,‡ the operations of Thiersch and Nussbaum were not followed by very pleasant results, inflammation and sloughing of tissues occurred, large abscesses were formed, and deep ulcerations were produced. Trousseau tersely remarks: “Although authors *have pretended to have obtained cures*, the results are far from being satisfactory.” Trousseau also objects to the use of gastric juice, or pepsin, in cancerous tumors on rational grounds, and inquires why they do not cure *cancer of the stomach?* which knotty question we leave our author to answer. The author now discusses *mineral acids, oils and fats*; he evolves no new ideas from his personal experience with these articles, but clings closely to the skirts of tradition. *Phosphorous* seems to be one of our author's favorite remedies. *Iron* is discussed at length. The author has neglected to mention the value of *iron filings as an antidote in poisoning from the salts of copper.* Trousseau

* Handbuch der Gesammten Arzneimittellehre. Theodore Husemann. Berlin, 1874. Vol. 1, page 133. *Et seq.*

†A Handbook of Therapeutics. Sydney Ringer. New York, 1874.

‡Traité de Therapeutique et de Matière Medicale, 9th Ed. Paris, 1875.

speaks of this agent in high terms. *Manganese*. As in the case of the articles on iron, our author has closely followed in the footsteps of Trousseau. *Bismuth—Arsenic*. The author neglects to mention the fine results following the use of bismuth in some forms of dysentery (Trousseau et Pidoux). *Arsenic*. Exhibits a very close study of Trousseau. The simple bitters: *quassia*, *gentian*, *columbo*, *coptis*, *sabbatia*, *cornus Florida*, are briefly noted, as are the aromatic bitters, *serpentaria*, *prunus Virginiana*, and *cascarilla*.

Eucalyptus—Considering how much has been written regarding it, has been but briefly mentioned. *Hydrastis* and *Cinchona*—The author has written at length regarding cinchona and its salts; *we fail to see where he has contributed anything new regarding the subject*, although the article is very complete. *Agents promoting destructive metamorphosis or increasing waste*. *Alkalies*—*Potassium*, *calcium*, *lithium*. Alkaline and saline springs is a close imitation of the authors fellow townsman's, Dr. George E. Walton's work. Walton's chapters on European Spas are, in turn, mostly modeled after Braun.*

Ammonium—Sulphurous acid and the sulphates, and the *sulphurous waters*, are neatly written up. *Iodine*—This is one of the most complete articles in the book, showing a close study of Trousseau. It is much more full and explicit than is Wood's article on the subject; the same may be said of *mercury*, which agent is treated at length. *Gold*—Our author states that "excellent results are obtained from the use of these auric preparations in certain forms of mental disorders: *melancholia*, *hypochondria*," etc. We may be pardoned for doubting the efficacy of the remedy in such conditions. Our author has evidently consulted Hahnemann,† who states: "Let a *melancholic* patient disgusted with life, and feeling pressed by an insupportable anguish to commit suicide, smell, for several minutes only, a flask containing a *quadrillionth* of a grain of homeopathic powdered gold, and, at the end of half an hour, he will be delivered from the demon which seemed to possess him." Our author does not prescribe what form of gold should be used under such circumstances, nor how it is to be administered. Like his statement, we think the gold might be taken *cum grano salis*. Regarding the author's

* On the Curative Effects of Baths and Waters: A Hand-book to the Spas of Europe. By Julius Braun (*Weber's Translation*). London, 1875.

† Hahnemann quoted by Renouard. History of Medicine. (*Comegys Translation*.) Philadelphia, 1867, p. 665.

remark that gold is a fine remedy in *chronic Bright's disease*, we may say of him :

"An excellent Paracelsian, and has done
Strange cures with mineral physic."

Argentum—Very completely studied and well written. In *progressive locomotor ataxia* the author thinks silver has not been the specific, as once claimed by Wunderlich. In his belief our author will find himself supported by Trousseau, Charcot and Vulpian. We do not fancy the writers use of nitrate of silver injections (hypodermic) in *sciatica*, as it strikes us the remedy might possibly be worse than the disease; barring this exception, we are highly pleased with the remarks on *silver*. *Copper, lead and zinc*, well written but presenting not much that is new. *Antimony*.—We are surprised that the author has neglected to mention the hypodermic injections of antimony in sebaceous cysts, a practice followed by Breckel, who has used the Pravez syringe extensively in such cases; which fact is mentioned by Trousseau. The article on alum is well worked up. "*Tannic acid, gallic acid, catechu, kino, krameria, hematoxylon, geranium, quercus, alba, rosa, gallica, rubus, myrica cerifera*, and numerous other vegetable astringents the value of which as therapeutic agents can not be over estimated, are almost neglected by the author. Readers in search of full information regarding astringent vegetable remedies will have to look elsewhere. It seems strange that the author should so slight one of the grandest departments of *materia medica*, especially is this the case, since it would have been little or no trouble to have compiled excellent article on each subject from the late work of Phillips,* and the more elaborate work of Stille. *Colechicum, quaiacum sarsaparilla, stillingia, sanguinaria, and oxanthoxylus*. All admirable, showing that the author, if he chose, could easily obviate the mistake made in not writing up more fully the vegetable astringents; we trust for the sake of new editions of his book that the writer will treat the neglected remedies more *in extenso*. *Agents used to modify the functions of the nervous system*. A. *Of the spinal cord and sympathetic*. *Electricity*.—Our author treats briefly of *galvanism* and *faradism*. In discussing the physiological effects of galvanism he remarks: "notwithstanding the brain is encased in a bony envelope, it has been conclusively shown that the galvanic current applied to the exterior of the skull, does not traverse the brain." We are surprised that the writer does not mention more fully his *grand original investigations* on the *galvanic current* applied to the *interior* of the skull.

* *Materia Medica and Therapeutics, Vegetable Kingdom*. Charles Phillips. London, 1874.

His brilliant experiments with galvanic needles on the *living human brain* receives but brief mention, he says, "in a series of electrical experiments on the brain of a woman exposed by an epithelioma, I was enabled to demonstrate the homology of the function of the brain of animals and man." Our author's *claim to priority*, in the electrolytic removal of patient from *malignant brain tumor*, can not be gainsaid.

Our author does not enter fully, into the surgical application of the *galvano cautery*, and gives none of the remarkable results obtained by Amussat* from its use. The article on *electricity* is, on the whole, very well written.

Strychnia.—Our author, quoting Echeverria, says: "The effects of strychnia are widely different when administered hypodermically or by the mouth." This statement will be found to be contradicted by several writers. Says Smith:† "strychnia operates in the same way by whatever channel it is introduced into the system." Our author neglects to mention the accumulative action of the drug. *Ergot*. Very well written, but *open to criticism*. *Digitalis*.—Quite elaborate but contains nothing especially new; the same may be said of *cimicifuga* and *belladonna*. *Stramonium* and *hyoscyamus* are treated of briefly; the latter agent certainly deserves a longer notice.

2. *Agents exciting the functional activity of the cerebrum* *camphor*, *assafœtida*, (which the author spells with one s,) *valerian*, *serpentaria*, *alcohol wines*, *malt liquors*, are touched on at some length and are extremely readable, the three latter especially so. *Ether*, might have been longer. *Chloroform*.—The author's hobby *deep injection of chloroform in neuralgia*, absorbs almost all his attention; we regret to say that we do not entertain high hopes as to the future popularity of his specific. One case (of which we have heard), in which the injection was used, said to have been followed by *sloughing* and *necrosis*, leads us to doubt the efficacy of the remedy. The author's article on *chloroform* is considering the importance of the subject, is the poorest one we have had the pleasure of reading for some time.

Chloral.—The author's *personal experience* with chloral in *cholera*, is stated as follows: "There is no means of treatment of *cholera* now known so effective as this, as the author has personally witnessed." We deem this statement *absolutely unreliable*, and for the following reasons: if the author has had

* *Memoires sur la Galvano Caustique Thermique*. Par A. Amussat Fils. Paris, 1876.

† *Commentary on the English Pharmacopœia*. By Walter S. Smith. London, 1875, p. 468.

personal experience with the use of *chloral*, in *cholera*, it *must have been subsequent to 1870*. The only epidemic of *cholera* since 1870, in Cincinnati (the author's residence) was a slight one, occurring in 1873, during which the entire mortality of the city from this disease was only 207, distributed as follows:

In hospitals	22
Residences unknown.....	8
In hotels.....	1
In private residences.....	34
Tenement and boarding houses.....	142

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(Vide Report of J. J. QUINN, Health Officer of Cincinnati.)

The author's practice is *not among tenement houses*, he will no doubt willingly concede this point. The second case occurring during the epidemic (June 15, 1873,) was attended by the author in connection with two other physicians. *The patient died* within 22 hours. It would be an interesting fact to know whether *chloral* was used in this case. There are *several hundred physicians* in Cincinnati, and *no one man among the number* had any very *extensive cholera practice* during that year, as the slight mortality will show. It is a matter of regret that the author has not *heretofore*, published some elaborate statements regarding the *number of cases of cholera successfully treated with chloral*. Wood, a much more reliable writer than our author, does not even mention the use of *chloral* in his work (written 1874). It is not likely that Prof. Wood would slight any of our author's *great discoveries*. *Croton chloral hydrate, opium*. Well written and elaborate, barring one exception (p. 359,) where too much time is occupied with the discussion of "the combined uses of belladonna, morphia and atropia," a combination too strongly characteristic of a *shot gun prescription*. Our author says in speaking of this combination, "if however, the quantity of *atropia* be in excess of what is necessary to establish the physiological balance in the cerebrum, it overrides the action of morphia and asserts its own peculiar power of inducing *phantasms, illusions and hallucinations*." Our author was evidently suffering badly from the an excess of atropia when he penned this portion of his article, as all the physiological symptoms described appear to be present.

Hops, Lactucarium—Brief and uninteresting. *Bromides*—Quite elaborate, and well written.

Agents which depress the motor functions of the Spinal Cord and Sympathetic—*Conium*—Well written; our author advises

against the hypodermatic use of the remedy, on account of the local inflammation induced.

Gelsemium—The article on this subject is quite elaborate. The writer states (p. 380) that “it is to be regretted that the author’s experiments are regarded as ‘inconclusive’ by Dr. H. C. Wood.” Prof. Wood’s opinion, regarding the *inconclusiveness* of some of our author’s statements, is participated in by others. *Arnica*—Brief and to the point. *Trimethylamine*—Our author states, that “thus far the *only* application made of trimethylamine is in the treatment of acute rheumatism and gout.” The writer is evidently *not posted*; Fossagrives has extolled the agent for its efficacy in epilepsy; Guibert, in asthma and quinsy; Kaleniczensco, in bronchitis, hemorrhoids, diseases of the spleen, liver, and in scrofula and rachitism, according to Heckle* (p. 105). *Jaborandi*—A very fairly written article. *Physostigma*—This article is for the most part intended to impress the readers with an idea that our author has *contributed greatly* to our knowledge regarding calabar bean. On page 393, is a conspicuous “note” marked “on the priority of discovery of the physiological antagonism supposed to exist between physostigmia and atropia.” The writer has so often *attempted to prove* that credit was due himself for original investigations regarding calabar bean, that a brief *resume* of his claim will not be out of order. After having read Tison’s† elaborate memoir on the subject, we have come to regard our author’s personal pretensions as wholly unwarranted. We may be pardoned for introducing at this point the numerous bibliographical references of Tison, up to, and not subsequent, to the time of our author’s first appearance on the calabar stage.

The following is a list of writers fairly classified:

Daniel—On the Natives of Old Calabar.—Journ. of Æthol. Soc., London, 1846.

Christison—The Monthly Journal of Medical Science. 1855. Vol. xx. Trans. Roy. Soc., Edinb., 1855.

Balfour—Trans. Roy., Soc. xxii. 310, t. 16, 17.

Th. Frazier—On the characters, action, and therapeutic uses of the ordeal bean of Old Calabar. Edinburg. 1862.

On the antagonism between the action of Physostigma and Atropia. Edinburg. 1870. Trans. Roy. Soc., Edinb. May 29th, 1871.

Atropia as a physiological antidote to the poisonous action of physostigma. Practitioner. Feb., 1870.

Hart—The Lancet, May, 1863. *Ib.*, January, 1864.

Liebreich—Ophthalmological Congress of Heidelberg. 1st Sitting 1863, and Annal d’Oculist.

* Histoire Medicale et Pharmaceutique des Agents Medicamenteux. Par le Docteur E. Heckle. Bruxelles, 1874.

† Histoire de la Fève Calabar. Par Edouard Tison. Paris, 1873.

- Argyl Robertson*—On the Calabar Bean as a new agent in ophthalmic medicine. *Edinb. Med. Jour.* 2d Part. 815. 1863.
Ib. Note on Calabar Bean. June, 1863. p. 115.
- Geraldes*—De la Fève de Calabar. *Congress Medico-Chirurgical de France.* Rouen. 1863. p. 57.
 Comptes rendus hebdomadaire de l'Académie des Sciences. 1863. p. 45.
 Bull. Ther. 15 Mai, 1868.
- Neill*—*Medical Times and Gazette.* 1. 491. 1863.
- Soelberg Wells*—*Med. Times and Gazette.* May 16th, 1863. 1. 501.
- Nunneley*—*The Lancet.* 11, 65. 1863.
- DeGraefe*—*Deutsch Klinik.* 1863. No. 29.
Archiv Ophth. Bd. ix.
Annal d'Oculist. 30 Nov., 1866.
Schmidt's Jahrb. 1. 380. 1867.
- Hanbury*—*In Pharmac. Journal.* Ser. 2. iv. 559. *In Journ. Pharm. et Chim.* xlv. 47. 1863.
- Warlsmont*—*Annal d'Oculist.* Sept. and Oct., 1863.
 La Fève de Calabar—ses propriétés physiologiques et ses applications à la thérapeutique oculaire. 1863.
- Buchen*—*In Bot. Zeit.* No. 47. 1863.
- Hulke*—*The Lancet.* 1. 717. 1863.
- Holmer Coot*—*The Lancet.* 1. 348. 1864. *Et Mon. Med.* No. 52. 1867.
- Harley*—*Medical Times and Gazette.* 1. 61. 1864.
- Bouvier*—*Gaz. Med.* No. 51. 775. 1861.
- Lopez*—Etude sur la Fève de Calabar. *Theses de Paris.* 1864. No. 197.
- Jobst and Hesse*—*Annal der Chem. und Pharm.* cxix. 115. *Extrait dans le Journal de Pharmacie et de Chimie.* 1864.
- Mathosel*—De la Fève de Calabar. *Theses de Paris.* 1864. No. 225.
- Kleinwachter*—*Berlin Klinik Wockenschr.* No. 38. 1864. p. 369.
- Lemaire*—*Bull. Ther.* lxxvii. 79. 30 Juillet, 1864.
- Reveil*—*Formulaire Raisonné des Médicaments Nouveaux.*
- David Young*—*Edinb. Med. Journal.* x. 192. August, 1864.
- Hutchinson*—*Med. Times and Gazette.* Sept. 3d, 1864.
- J. Baker Edwards*—*Med. Chir. Rev.* xxxix. (68). P. 530. 1864.
Schmidt's Jahrb. 1865.
- Mettenheimer*—*Memorabilien.* ix. 8. 1864.
- Donders*—Anomalies of the Accommodation et de la Refraction de l'Œil. *Sydenham Society.* 1864.
- Vee*—Recherches Chimiques et Physiologiques sur la Fève de Calabar. *Theses de Paris.* 1865.
- J. H. Evans*—*Med. Times and Gazette.* Oct. 15, 1864, in *Schmidt's Jahrb.* 1. 58. 1865.
- G. Lebon*—*Bull. Ther.* 1865.
Ib. 1866.
- Vintschgan*—*Atti del Instituto Veneto dei Scienze, et Schmidt's Jahrb.* v. 172. 1865. *In Unters-z Naturlehre.* ix. 800. 1865.
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Bull. Ther. 1866.
Ib. March 30, 1867.
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- Laschkemtsch*—*In Archiv. of Pathol. Anat.* 291. 1865.
- R. Lentz*—Versuche ueber die Einwirkung des Calabar bohne alef den Bluthreislauf. 1865.
- Tachan et Pick*—*Archiv der Heil Kunde.* vi. 62. 1865.
- Eben Watson*—On the physiological action of the ordeal Bean of Calabar, and its antagonism to tetanus and strychnia poisoning. *Edinb. Med. Jour.* xii. 990. No. 14. May, 1867.

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J. Ragon—Action de la Fève de Calabar et de la nicotine sur l'iris (in Henle and Pleuffer. 3d ser. xxix. 1867.)

Westermann—Untersuchungen, über die Wirkungen des Calabar bohne. Dorpat, 1867.

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Laschkenich—Remarques sur l'action physiologique de la Fève de Calabar. in Archiv. von Virchow. 1866. Et Monr. Med. No. 33. 1867.

Campbell—Gaz. Med. Strasburg. 1867. In Bull. Ther. 30. 1867.

Codex Medicamentarius. p. 447. Paris. 1866.

Gubler—Comment. ther. 118-120.

G. Planchon—In Guibourt Drog. Simpl. Ed. 6. 111, 380.

V. Bezold und Gotz—Centralblatt. v. 16. 1867.

Rober—Über die Wirkungen des Calabar extractes auf Herz und Ruchensmark. Berlin. 1868.

Abstein und Sustschinski—Centralblatt. v. 40. 1867. Ausführlicher in Wurzb. Unters. iii.

Bezold et Gotz—De quelques effets physiologiques de la Fève de Calabar. Monr. Med. No. 26. 1867.

Tison's bibliography is not as full as it might be; this fact he himself states. It will be seen that any number of observers had worked up the subject of calabar bean. It might be safely said, that with this immense quantity of literature the subject of calabar bean was not an altogether unfamiliar one. In the year 1864, Kleinwachter (Berlin Klinik Woschschrift, No. 38, 1864), used the calabar bean as an antidote for atropia poisoning, and *first discovered the antagonism* between the two drugs. In 1867, Bourneville confirmed the same by experiment. In 1868, our author presented a paper to the American Medical Association on atropia, in which were included some experiments regarding atropia and physostigma; of these experiments, we may remark with Prof. H. C. Wood, they were "few" and "really indecisive." Our authors attempt to associate his own name with the discovery, can therefore only be regarded as a pleasing instance of eccentricity. We are sorry we can not encourage him, but let the truth of history be known; honor should only be given where honor is due. *We must state positively that our author has no claim for priority of discovery.* The facts are these—

1st. Kleinwachter first discovered the antagonism.

2d. Bourneville first proved the antagonism by experiment.

Subsequent experimenters can not claim the honors. In his paper to the American Medical Association, before alluded to, our author states—"Dr. Frazier, of Edinburg, has published an admirable paper upon the physiological effects of the extract of calabar bean. I shall avail myself of *his very exhaustive labors.*" This our author did beyond doubt.

Tabacum, Lobelia, Hydrocyanic Acid and Cyanide of Potas

sium, are well written. *Amyl, Aconitum, Veratrum Viride*—The two latter papers are quite readable and instructive. *Remedies used to cause some evacuation from the body. Evacuants, Apomorphia*—Our author should read the elaborate memoir of Bourgeois,* which is not even mentioned. *Ipecacuanha*, as in case of apomorphia the author has overlooked a most complete paper, that of Polichronie.† Our author's papers on *emetics* are far from satisfactory, being very incomplete.

Cathartics—*Manna, sulphur, magnesia, castor oil, senna rhubarb, aloes, scammonium, colocynthis, podophyllum, leptandra, iris versicolor, enonymus, gamboge, croton oil, elaterium*, are treated briefly and to the point. The same may be said of the articles on *anthelmintics, mucuna, santonica, spigelia, chenopodium, filix mas, granati fructus cortex, kousso, kameela and pepo*.

Urino genital remedies—*Turpentine*—Very well written. *Copaiba*—Short and unsatisfactory; the same may be said of *cubebs*. *Capsicum* and *juniper*—Very readable. *Erigeron, buchu, uva-ursi, pareira, chimaphilla, scoparius, carota, taraxacum, scilla, petroselinum, polygonum hydropiperoides, ruta, sabina, cantharides*—Brief and not very interesting.

PART III. *Topical Remedies*—*Oxygenium, chlorinium, brominium, carbolic acid*—Brief and uninteresting. *Creosotum*—One of the best articles in the book. *Salicin*—What the author means by putting salicin in among the topical remedies we are at a loss to understand. It is probably an accident. *Salicylic acid*—Quite elaborate. *Boracic acid, benzoinum*—Are uninteresting.

Aqua puncture, bloodletting, escharotics—Are very readable.

Emollients, demulcents and protective agents—We have read many better articles.

The *index* might have been more carefully prepared.

In the short space assigned for review, it would be difficult to include all the faults of the book. We have not touched upon the subject of the physiological actions of each remedy to which the author has given entirely too much attention; as text books are designed especially for students, only matters of real practical interest should be introduced therein, and therefore the space devoted to rabbits, guinea pigs and frogs might have been utilized to a better purpose. The experi-

* De l'Apomorphine—Recherches Clinique sur un nouvel emetique. Par J. B. Victor Bourgeois. Paris. 1874.

† Etude experimentale de l'Ipecacuanha et de son alcaloide. C. A. Polichronie. Paris. 1874.

mental part of the book is quite a close imitation of Wood, without Wood's reliability. Yet this portion of our author's work is not entirely worthless, although lacking the flavor of originality. Many of our author's compilations are quite readable, as witness the one on cinchona, which smacks strongly of the style of the Huseman Brothers (*Die Pflanzenstoffe*. Berlin. 1871.)

Counter-irritants—The chapter on this subject causes a pleasant surprise. The ideas regarding counterirritation, enunciated by Dr. Cornelius G. Comegys, formerly Professor of the Institutes of Medicine in the Ohio Medical College, are here fully adopted. Our author has become a convert to a theory at which he scoffed only a short time since. This change has come o'er the spirit of our author's dreams, owing to the perusal of Anstie's article on the subject published in the "*Practitioner*," (English. 1869-70. Vols. 2d, 3d and 4th.) If reference be made to the "*Cincinnati Repertory*" of 1870, it will be seen that our author, in a criticism of Prof. Comegys' paper on "Brain Tumors," indulged in a sneer at what he calls "Dr. Comegys' pet vaso-motor theory." Long before the views of Anstie has been promulgated the reviewer remembers distinctly (while attending the lectures of Profs. Comegys and Bartholow, in 1864), hearing Prof. Comegys advance this special theory. As early as 1866, the reviewer also remembers reading an article written by Prof. Comegys on the "Treatment of Asiatic Cholera," (published in the "*Cincinnati Journal of Medicine*, 1866." Edited by our author's distinguished friend and admirer, the late Prof. George C. Blackman), in which Prof. Comegys stated, speaking of the use of blisters in the disease, "the great indication in the cases we usually see, is to restore the tonicity of the leaking vessels, not by depletion, but by stimulation, which is accomplished chiefly by impressions made by our remedies upon the sensory nerves." In the July number of the "*Philadelphia Medical and Surgical Reporter*," among the "Hospital Reports," (reported by Dr. J. W. Hadlock, of Cincinnati), is the clinical history of one of Prof. Comegys' cases. On page 54 Prof. Comegys states, after enunciating his vaso-motor theory, "I used steadily the hypodermic injection of strychnia, because of the known dynamical properties of that agent for exciting the nervous centres and so reach by direct action the muscular tissues of the extreme vessels." The same year (1870), a short time later, our author in an article in the "*Cincinnati Repertory*," characterized more by bad taste than sound judgment, ridiculed Prof. Comegys' idea

regarding strychnia, nevertheless we see, by referring to our author's article on nux vomica, in the work under review, that the effects of strychnia are exerted not on sensory or motor fibres, but "on the seat of motor functions." To those who care to read the literature on the subject, there will here be found that strangest of anomalies, the conversion of Dr. Bartholow to one of Dr. Comegys "pet theories."

En resume.—The book is not a great book, as are those of Stille, Trousseau and Pidoux, and Kohler. Our author is to be congratulated, however, on presenting a work to the medical public which is at least passable. We have read worse ones. Actuated by a strong desire to encourage professional industry; impelled by motives of kindness to encourage a young author's praiseworthy attempt at adding to our store of professional knowledge; moved by strong considerations of duty to requite home talent, we cheerfully and willingly recommend the readers of the LANCET AND OBSERVER to purchase a copy of the book. T. C. M.

Monthly Review of Nervous Disorders, Insanity and Medical Jurisprudence. By Prof. D. A. MORSE, M. D.

The *Annales d'Hygiene* for March continue and conclude the article of Delpech and Hillairet, upon the manufacture of the chromates. The conclusions, from thirty-six cases detailed, are presented as follows:

The workmen who make the chromate and bichromate of potassa, and above all this last, are subject to accidents which result directly from the escharotic and caustic action of these compounds. These accidents consists in special ulcerations, which develop upon all points which remain in contact with the excoriated skin, powder of the chromates or concentrated solution.

This escharotic action manifests itself in a special manner by a perforation in a particular manner of the septum nasi, which is almost constant with the workmen in the chromates.

At length, some observers have described with them periods of oppression analogous to an attack of asthma, with grave ulcerations at back of the throat simulating syphilitic ulceration.

He concludes the action to be local, and says there are no symptoms of general intoxication.

"*De l'Influence Pathogenique de l'Encombrement*," is the title of a paper by Leon Colin, Professor of Epidemiology at Val-de-Grace. He says of this influence of over crowding that it is the chief point of departure for one of the most happy reforms in public hygiene. When the army surgeon is asked, why such or such conditions result in the army? he replies, that they are due to the numbers

gathered together. But our author thinks this not wholly correct, for the reason that the same result should follow in garrison, in time of peace, where equal number are gathered. It is an error to suppose that diseases, of which typhus is the type, are due simply to such causes. The author consider the influence of crowding upon several diseases. He says: "Small pox may attack alike those in good and in bad sanitary conditions." He says: "That if the virus be introduced into a crowded camp or hospital, the explosion will be greater, but the liability to contract the disease is not increased. A hospital less crowded has as many cases, in proportion, to the number of patients." Hence, the concentration of the poison does not, by his theory, augment its effect, *i. e.* render it more potent to infect. In his work—*La Variole au point de vue epidemiologique et prophylactique*, Paris, 1873, he claims that he has proved that the accumulation of 8000 cases at Bicetre did not increase the danger to the sick, nor to surrounding inhabitants. The danger he claims was no greater for physician, nurse or others, than where the number was less. The prognosis was no more grave at Bicetre than elsewhere at Paris: He says: "New proof that, with diseases clearly contagious, which have for cause a specific virus, that the evolution depends rather upon the energy of the germ in its impression than upon surrounding conditions under which the patient is attacked."

Typhus he consider opposed to small pox, scarlatina, &c., in the influence of crowding patients together, upon the prognosis. Jacquot—*Typhus de l'Armee d'Orient*, p. 156, gives as a result, in the Crimean war, of 375 attacked, 370 deaths, while at Val-de-Grace of 100 there were 14 deaths.

Local diseases increase in severity by accumulation, as stomatitis, purulent ophthalmia, diphtheria (not local). Dysentery and yellow fever differ in this. The first he claims is aggravated by accumulation of cases; the last, not.

The article concludes as follows:

"1. Influence of crowding upon healthy individuals. When healthy individuals are subjected to the influence of a large assemblage, or even of crowding, the normal state of the organism is not favored, its integrity and that of the secretions are not preserved. Development of typhus is not much favored, but if these persons are adults, as soldiers, there is rather danger of typhoid, abdominal typhus, which, contrary to typhus, has more affinity for healthy individuals. Typhus finds its best soil, for propagation, among those previously exhausted; typhoid develops itself more readily in crowded barracks than in a hospital over crowded with sick.

In certain conditions of climate a crowd of individuals in health, furnishes a better soil for the development of yellow fever than in one whose constitution has been weakened.

The morbid predisposition is increased by an assemblage of individuals, if they are exclusively composed of persons of the same age, as the army, analogous conditions and predispositions being

multiplied ; the disease which attacks one finds similar conditions of receptivity with all, and this is increased if these persons have simultaneously undergone a change of location ; typhoid fever will find the condition most favorable for its propagation in regiments suddenly transported into the large cities.

The morbid predispositions of these assemblages vary according to the conditions, a number of influences of diverse character modifying them ; prisoners, for example, long confined in one place, suffer more seriously than those at liberty."

" 2. *Assemblage of Sick.* The influence of these assemblages varies according to the nature of the ruling disease among those which compose them. When the affections are apyretic, chronic diseases, not inducing any superactivity of functions and secretions, *i. e.*, as chronic rheumatism, various organic diseases, venereal diseases, &c., the atmosphere surrounding the sick is not excessively charged with human emanations, as in the case of the course of pulmonary and cutaneous diseases, where the excretions are more abundant. There, however, does exist, among chronic afflictions, a certain number of cachexies which give to the organic diseases a noxious character very special, and appear to convert the ordinary human miasm into typhus. Such is scorbutus, the malarial cachexia, diarrhœa, dysentery (when chronic), and chronic suppuration. Arnold and Guillemin have given proof in a striking manner of the typho-genetic power of these dyscrasies.

The danger of these assemblages is at times more considerable for those in the neighborhood of them than for those who compose them : as the Arabs, dying of hunger and the diseases engendered by it, as diarrhœa, dysentery, etc., while they show but rarely signs of typhus, or only imperfect symptoms, they give true typhus to European colonies and soldiers.

Fauvel has also noted this remarkable fact of typhus developing itself, with preference, in its clearest forms, with healthy persons who surround the sick, as physician, nurses, sisters of charity, &c., and among ships, carrying emigrants, with population having intercourse with them. Hildebrande asserts that a certain degree of previous good health is necessary for the evolution of exanthematic typhus.

So to the assemblage of acute diseases, they give place to different dangers, to different prophylactic exigencies, according to the cases.

1. The most important of these exigencies is the dissemination as complete as possible, of the sick attacked with typhus affections, of wounded, and of women accouched, especially in large cities. These sick ought to be placed in hospitals containing few patients, and in uninhabited quarters. The dissemination of typhus patients has a double advantage : the crowding of these cases renders their affliction more grave and transmissible. We also diminish the chances of the reciprocal influence of patients, and diminish the danger for those who attend them. It is the same for the plague.

2. The exanthematous fevers do not in general cause much inconvenience from aggregation. During the siege of Paris, we could concentrate in two special hospitals all the variolus of the army of the defense. Never did we dare to place together like numbers in the same localities of wounded, of typhus, or of scorbutics. Contrary to typhus, the aggregation of variolus patients, does not increase the gravity of the disease and does not constitute a center of contagion more to be feared by the neighboring population than isolated cases.

3. Placing cholera patients in well organized hospitals appears to us superior to scattering them under tents, and their aggregation is less to be feared, like small-pox, than the gathering of typhus cases. It is the same with dysenteric: in spite of the inconvenience of neutralizing the inconvenience of neutralizing the infectious products, it is necessary to remember their greatest enemy is cold, which kills great numbers; for them the best place is not the tent, but a well-arranged chamber of a fixed hospital.

4. In malarial countries hospitals ought to be in the centre of villages, where the sick will be protected from new morbid impressions. During the occupation of Rome by our army, the principal French hospital, the Saint Andrew, at the Quirinal, was more healthy than that of Saint Therese, at the suburbs of the city; here relapses were common. Barracks should be closed at an early hour in the evening, and soldiers had better breathe an atmosphere less frequently renewed than to breathe malaria.

5. Yellow fever enters into the centres of population most condensed, therefore the hospital ought to be removed to the country as a preventive measure, and, if possible, upon an elevation.

REPORTS OF ASYLUMS FOR THE LAST YEAR.

Fifty-second Annual Report of the Officers of the Retreat for the Insane at Hartford, Conn. Henry P. Stearns, M. D., Superintendent.

The expenses of the institution were, for the year ending, 1876, \$102,861 61. Number of patients treated during the year, 233.

By the last report of Dr. Nichols, of the Government Hospital for the Insane, we see the whole number of patients treated in that institution the last year was 718; expenditures, \$160,361 11. The difference per capita of maintenance is considerable.

Wilbur, in the appendix to his report upon the cost of maintenance of the insane in Great Britain, in thirteen lunatic hospitals, containing some 2,000 pay cases, of the well-to-do class, shows the average cost was, in our money, \$7 42. The staple articles of produce, he says, costs much less in America. Thus the bills of British Asylums show the cost of beef 24 cents per pound, mutton 20 cents, pork 17 cents. He says the cost of the three New York State Lunatic Hospital, now containing 911 patients, is an average

weekly of six dollars per capita. The weekly expense of the three Massachusetts institutions, of a similar grade, is less than four dollars. At the Willard Asylum, for the Chronic Insane, is a little more than three dollars.

There certainly is too great a difference in the cost of running institutions of like grade. Why one can be run for four dollars, and another requires eight or nine, both having relatively to the number of inmates about the same price to pay for labor and provisions, is one of the mysteries of our public institutions.

The report of the Hartford retreat claims a per cent. of recoveries on admissions, in recent cases 87; per cent. on admissions, 78.3; in the asylum, in all cases, chronic, acute and all, 46.7. Authors have long maintained that if cases were promptly submitted for treatment, from 80 to 90 per cent. would recover; but we fear much more is to be considered than a lucid interval during which cases are discharged. This idea once so prevalent, which so many asylum reports contained, that *nearly all* could be *cured* if treated early in the course of the disease, is exploded. Many presented in their reports are again admitted as relapsed. We believe, however, the truth to be that a much greater per cent. of permanent recoveries will follow early admissions, but what the exact per cent. would be could only be determined by long continued accurate observation.

We will present the admissions, discharges, recoveries, &c., of a number of our asylums for 1875, and allow each reader to draw his own conclusions from last reports received:

INSTITUTIONS.										
	Year	Patients at last report	Admitted since	Total	Discharged	Improved	Unimproved	Died	Discharged for other causes	Remaining
State Emigrant Asylum, New York.....	1874	187	135	322	51	58	58	19	1	171
Blackwell's Island.....	1876	107	445	1522	137	53	67	93	7	1165
Worcester, Mass.....	1875	469	400	869	71	137	101	75	.....	485
Northampton, Mass.....	1875	433	193	626	37	43	45	25	.....	476
Taunton, Mass.....	1875	434	455	889	93	162	59	67	.....	508
McLean Asylum, Mass.....	1874	161	75	236	20	34	24	10	.....	178
Maine Insane Hospital.....	1875	394	188	581	68	31	2	52	.....	403
Western Ohio, at Dayton.....	1875	526	300	826	138	30	16	42	.....	600
Longview.....	1875	575	195	770	82	34	1	66	.....	592
Longview.....	1874	565	220	785	58	50	46	38	9	575
Western Ohio.....	1874	560	400	960	139	15	8	44	228	526

It would be interesting to arrange the reports of all our American asylums in this manner, adding another column for per cent. of recoveries. Had we time we would complete this list, as was our intention when we began it, presenting thus an idea of the number in each of our asylums, recoveries and deaths.

Micro-Photographs in Histology, Normal and Pathological, vol. 1, No. 3.

By CARL SEILER, M. D., in conjunction with J. G. HUNT and J. G. RICHARDSON, Philadelphia. J. H. Coates & Co., Publishers. Price 50 cents a number.

The plates in this number are, first, a longitudinal section of femur of a human fetus, five months old; a specimen of enchondroma, from the thigh, (very fine); and a specimen of hyaline cartilage. A brief descriptive text accompanies these plates, which need only to be seen to be appreciated.

A Sketch of the Life and Writings of Louyse Bourgeois, Midwife to Marie De Medici, the Queen of Henry IV, of France. The Annual Address of the retiring President before the Philadelphia County Medical Society. By WILLIAM GOODELL, A. M., M. D. Delivered June 5, 1876.

The subject of this sketch was the author of the first French work on midwifery ever written by a woman. Dr. Goodell in his most admirable way describes the marked ability, courage and tact displayed by Madame Bourgeois, narrating many of the incidents and intrigues connected with her engagement to attend the queen in her first confinement, her conduct and services on that and subsequent occasions; aptly illustrates the condition of the obstetric art at that period.

Theory of Medical Science. The doctrine of an adherent power in Medicine a fallacy. The ultimate special properties of vital force constitute the fundamental basis of Medical Philosophy and Science. By WM. R. DUNHAM, M. D., Boston. James Campbell, Publisher. pp. 150.

This little volume has been prepared quite as much for popular reading as for the medical profession. The author taking the very sensible ground that the non-professional readers should be sufficiently acquainted with the general principles of our profession to enable them to distinguish between quackery and rational practice. The book is divided, in two parts. In part first we find discussed the subjects science, force and its application, theory of vital force, or vitality. The application of the theory of vitality, disease, materia medica. And in part second, different systems of practice. The present state of medical philosophy. The drift of medical research and its influence on the people. And in conclusion, the plan of life.

A Manual of Percussion and Auscultation; of the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurism. By AUSTIN FLINT, M. D., Professor of the principles and practice of medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., etc., Philadelphia. Henry C. Lea. For sale by Robert Clarke & Co. Price \$1 75.

For many years Professor Flint has been engaged in giving practical instruction in Auscultation and Percussion to large numbers of students and practitioners. Not only those students but the whole profession will be glad to know that the substance of those lessons are placed in convenient book form. As in other works the author simplifies the subject as much as possible, considering the distinctive characters of the different physical signs as determined by analysis, and as based on variations in the intensity, pitch and quality of sounds; impressing the fact that the significance of physical signs relates to certain physical conditions, the importance of a familiarity with those conditions, as well as the distinctive characters of the signs by which they are represented, enforcing the necessity of sufficient study of the physical conditions and signs of health. The work is practical from first to last, and should be in the possession of every practitioner of medicine.

Cyclopædia of the Practice of Medicine. Edited by DR. H. VON ZIEMSEN, Professor of Clinical Medicine in Munich, Bavaria. Vol. IV. Diseases of the Respiratory organs. By Dr. Fraenkel, of Berlin; Professor Von Ziemssen, of Munich; Professor Steiner, of Prague; Dr. Riegel, of Cologne, and Dr. Fraentzel, of Berlin. Albert H. Buck. M. D., Editor of the American Edition, New York. William Wood & Co.

The first part of this volume is taken up by Prof. Fraenkel in a consideration of diseases of the nose, pharynx, and larynx. The various appliances in common use for making examinations of the pharynx are described, the use of the reflector in making examinations is specially urged, as it enables the physician to make his examination always in a good light, the suggestion is certainly a valuable one. A very interesting history of laryngoscopy is given, with our present knowledge of the subject, illustrations of the instruments used, and their description accompanies the text. Rhinoscopy, next claims the attention of the reader, in the consideration of which the author again urges the value of the reflector in making examinations of the nose.

Palpation is regarded as absolutely necessary in order to render conclusions certain in every respect. The points in the larynx and nose which can not be reached with the finger should be palpated with the finger. The various methods of making direct application of medicinal substances to the parts are very well described.

A number of pages are taken up with descriptions of the various atomizers in common use. We observe no new remedies or use of remedies for nasal diseases.

The chapter on the diseases of the larynx is by Dr. Von Ziemson, and briefly treats of annæmia, hyperæmia, hæmorrhage, abnormal color and the catarrhal inflammations of the laryngeal mucuous membrane.

The article on croup is by Prof. Steiner. In discussing the histology of the disease he says: "According to E. Wagner—whose numerous and thorough investigations have shown that there is *no sharp dividing line between diphtheria and croup*—an opinion with which I must entirely agree." There is undoubtedly a great similarity in the appearance of the croupous and diphtheritic membrané, but they are the product of two separate and distinct diseases. Prof. Steiner fairly states that his views in regard to the similarity of the membrane in the two affections are not accepted by other investigators. The prognosis is in general extremely doubtful. As to the treatment he says: "If the treatment by cold water and emetics fail to improve the condition of the child, if the inflammation continue to advance, and symptoms of carbonic acid poisoning occur, which are unrelieved by emetics, but one resource is left—*tracheotomy*. The only office of this operation is to establish a new provisional air passage. While the danger of death from laryngeal stenosis lasts, and to assist nature in her efforts to cure, no other means fulfill these indications so certainly and so directly." The writer very correctly urges the early performance of the operation, not waiting until the poison has done its work.

The chapter on diseases of the trachea and bronchi, by Dr. Riegel, is very complete and satisfactory. The volume maintains the high character of this great continental work.

Hay-Fever; or, Summer Catarrh: Its Nature and Treatment. Including the early form, or "Rose Cold;" The later form, or "Autumnal Catarrh;" and a middle form or July Cold, hitherto undescribed. By GEORGE M. BEARD, A. M., M. D., New York. Harper & Brothers, Publishers. For sale by Robert Clarke & Co. Price \$2 00.

This work is based on original researches and observations, containing the statistics of several hundred cases. The author takes the ground that the disease is a nervous one,—that it is a complex resultant of a nervous system especially sensitive in this direction, acted upon by the enervating influence of heat, and by any one or several of a large number of vegetable and other irritants, and that this will account for all the phenomena exhibited by the disease in this or any other country. He regards the disease as it appears at

different seasons as identically the same affection. In Chapter 1, the author gives a brief history of the disease and the literature of the subject. The next chapter is devoted to the author's own investigations, which were made largely by means of circular letters of inquiry. One of his circulars contained no less than fifty-five questions, all of a practical character, which is followed by the statistics of two hundred cases—from which he concludes that the disease is of infrequent occurrence in the South and North of the 44th degree of latitude. West of the Mississippi, North or South, the disease is rare, and the elevated regions of Colorado are curative. It does not exist in California. The author also concludes that the disease less frequently affects women than men; and that it is a disease of the brain working class rather than the muscle-workers. The disease is hereditary, beyond a doubt, and those of nervous temperament are largely in the majority. The average duration of the disease is not far from six weeks.

For prevention and treatment, the author recommends temporary resort to some point where the afflicted person will be free from the malady. As for medication, quinine has helped more persons than any other one remedy. Arsenic in the form of Fowler's solution in combination with belladonna, has been used with benefit. A mild galvanic current acts beneficially; the faradaic, or induced current has proved of little service. As to topical applications, the author commends the recently constructed atomizers. Among the remedies that have proven most beneficial applied in this way are quinine, camphor, iodine, glycerine, common salt, tannic acid, carbolic acid, and chloroform. These substances are used in varying strengths.

This is one of the most valuable additions to the literature of this subject that has ever been published.

Lectures on Fever: Delivered in the theater of the Meath Hospital and County of Dublin Infirmary. By WILLIAM STOKES, M. D., D. C. L., Oxon., F. R. S., Regius Professor of Physic in the University of Dublin, Etc. Edited by John William Moore, M. D., F. K. Q. C. P., Philadelphia. Henry C. Lea. For sale by Robert Clarke & Co. Price \$2 00.

The author disarms criticism by assuring the reader that "These lectures do not pretend to give even a sketch of all that is known, or believed to be known respecting fever." Such being the case, we wondered why the book was written and then printed. Looking farther we find that some of these lectures were delivered as far back as 1854, and published at that time in the *Medical Times and Gazette*. The work fairly represents the general knowledge of fevers and their treatment twenty years ago, being cotemporary with the admirable text books given the profession by Watson and Wood.

The Medical and Surgical History of the War of the Rebellion, Part II, Vol. II, Surgical History. Prepared under the direction of JOSEPH K. BARNES, Surgeon General United States Army. By GEORGE A. OTIS, Assistant Surgeon United States Army. First Issue. Washington.

This is one of a series of large volumes representing the labors of medical officers during the late war. The labor in connection with the preparation of such a work has been very great. The editor, Surgeon Otis, deserves the highest commendation for the systematic arrangement of the contents.

This volume consists of a presentation of the facts regarding the special wounds and injuries, according to regional classification, nearly all of which are tabulated. Other cases are adverted to in numerical statements.

The mechanical execution of the work is unexceptionable, many of the illustrations being photographs and chromo-lithographs of the finest workmanship.

Atlas of Skin Diseases, consisting of a series of colored illustrations, together with descriptive text and notes upon treatment. By TILBURY FOX, M. D., F. R. C. P., Parts 6 and 7, Philadelphia: Lindsay and Blackiston. For sale by Robert Clarke & Co. Price \$2 00 for each part.

Part 6, is devoted to a study of Baker's and Grocer's Itch, Impetigo Rodens, Porrigo of Willan and Bateman, Impetigo Contagiosa, (of editor). In Part 7 we find a consideration of the different varieties of Herpes, viz: Herpes Circinatus, Herpes Zoster (trunk), Herpes Zoster (of leg), Herpes Iris. Each of these affections is illustrated with a very excellent chromo-lithographic plate. The accompanying text is not only descriptive of the disease under consideration, but the author enhances its value by giving the therapeutical treatment.

The Medical and Surgical Directory of the State of Iowa. Price \$3 00. By CHAS. LATHROP, M. D.

This is the most complete work of the kind that has ever been placed in our hands. It contains a brief history of the Iowa State Medical Society, from its organization to the present time, with a complete list of all its officers during that period; the Code of Ethics adopted by the American Medical Association; the Code of Ethics of the American Institute of Homeopathy; and the Code of Ethics of the National Eclectic Medical Society; a brief

history of all the county and district medical societies, with list of members; a list of United States examining surgeons for pensions; Histories of the Medical Department of the Iowa State University and the College of Physicians and Surgeons of Keokuk; also, of all the State charitable institutions and hospitals; The Laws that Pertain to the Interests of the Medical Profession—among the latter we observe an ordinance that is enforced in Dubuque, Independence and other towns, requiring transient doctors or physicians to take out a license. This is a most effectual way of disposing of medical tramps. We also find recorded the Hippocratic Oath and Hippocratic Law. Some reminiscences of pioneer practice are interesting reading matter. While the register proper gives the name, post-office address, and professional standing of every physician in the State. The work has cost a large amount of intelligent labor and considerable outlay of money. We hope the members of the profession in the State of Iowa will show their appreciation of Dr. Lathrop's labors by each purchasing a copy of this, the first medical and surgical directory of the State of Iowa.

Obituary.

DIED—At his residence in Berea, on Saturday, August 5th, 1876, of tuberculosis, Dr. Alexander McBride, aged 54 years, 6 months and 23 days.

Dr. McBride was a man of more than ordinary prominence in the community in which he lived. Graduating at the Cleveland Medical College in 1845, he located soon after at Berea, where for nearly thirty years he labored for the alleviation of human suffering. During the late war he served for three years as a surgeon of an Ohio volunteer regiment.

Dr. McBride was ardently devoted to the interests of the medical profession, and his contributions to the medical press were always of such a character as to attract attention. His last paper was published in the LANCET & OBSERVER, April, 1875, under the title of "Complementary Parts of a Disease." When taken ill he was engaged in the preparation of a series of articles to appear in this journal on our indigenous *Materia Medica*.

Dr. McBride was married in 1848 to Amy Henry, a sister of Mr. Robert Henry of Berea, who died about four years since. The only remaining members of the family are two daughters, Aggie and Lucy, young ladies, who have the sympathy of large circle of friends.

THE CINCINNATI
LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.
T. M. STEVENS, M. D., Ass't. Editor.

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Original Communications.

*Art. 1.—Cancer.—A Country Practitioner's Opinion,
Based on an Experience of Twenty Cases of this
Dread and Loathsome Disease.*

By M. KEMPF, M. D., Ferdinand, Ind.

It is not my object, in this paper, to discuss either the pathogenesis or the morbid anatomy of cancer, but as I have had twenty cases to treat, I think I may express an opinion, based on the experience of these twenty cases.

Case No. 16 is put first, and given in detail, because it is the most interesting of my cases, in a surgical point of view.

CASE 16. In the summer of 1873, I was requested by Dr. Kamp, to visit Mr. Clark. On our way thither, the doctor related to me the following about the patient's case: Mr. C. was forty-eight years of age; he was a temperate and moral man; he had never contracted syphilis. In 1862, he served as a soldier in the U. S. Army, and whilst traveling in a railroad car, fell against the edge of a seat, injuring his right testicle. Inflammation ensued and the testicle gradually enlarged until at the present time; it was as large as a foetal head.

I found the patient in the following condition: considerably

emaciated; appetite poor; circulation sluggish; nervous system depressed, caused by the disease and other circumstances of the patient; rests tolerably well at night. On examining the affected testicle, I found it fully as large as a moderately sized head of an adult. Its scrotal covering was of a healthy appearance; the veins were only moderately enlarged; the tumor was of a dense consistence. The patient said it did not pain him except at the external abdominal ring; this I think was caused by the distention, which the enlarged testicle produced. From the slow growth of the enlarged testicle; from the little pain which it caused; from the little disturbance it produced to the constitution of the patient; from its solid feel; and from its appearance, I concluded that the tumor was a fibroid degeneration of the testicle. Having informed the patient that nothing could afford any permanent relief, excepting the knife, he readily consented to be operated upon.

Chloroform was, therefore, administered, and the patient being fully under its influence, I operated thus: an elliptical incision was made, including the greater part of the scrotum, down upon the diseased testicle; the affected organ was then peeled from the septum scroti, and that part of the scrotum which was left, to be used as a covering for the wound. The spermatic cord was now detached from its surrounding tissue, opened, the spermatic artery tied, the cord divided, and the testicle removed. All sources of hemorrhage being secured, and the surface of the wound, after the lapse of several hours, being well glazed, it was closed by sutures; compresses, steeped in cold water, were applied over the parts operated on. Anodynes were ordered in sufficient quantity and at such intervals as the case required. Nutritious diet and a moderate use of stimulants were allowed.

The weight of the diseased testicle was seven pounds and ten ounces. On dissection, it proved to be a fibrocystic growth. Dispersed through the mass were numerous cavities; some as large as a pigeon's egg, others no larger than a pea and others as small as a hemp seed. Some of these cavities contained a straw colored, others a greenish fluid.

January the 9th, 1874, I was again consulted by Mr. Clark, in my office, at Ferdinand, about a swelling in his right groin. On examination I found a tumor of the size of a large sized fist of a man. The color of the tumor; the large veins that meandered over it; its rapid growth; its feel; the pain it caused the patient, all convinced me that poor Mr. C. was afflicted with encephaloid cancer; and, considering its situation, the groin, where there is a perfect net work of lymphatic glands, I rightly concluded that the patient was doomed to die.

Mr. Clark gave the following history of the growth: Three months after he had submitted to be castrated, he noticed in his right groin (the side from which the testicle was removed) a "kernel" about the size of a small hickory nut, just in the upper angle of the scar of the wound which had been made to remove the diseased testicle. The kernel gradually enlarged, until, as remarked before, it had attained the size of a man's fist. The patient further reported that he had shown the swelling to several physicians, but they making little of it, he, Mr. Clark, did not deem it worth the while to consult me until at the present time.

The present pitiable condition of the patient; the mental suffering he had endured for six or eight years; the painful and mutilating operation he submitted to in order to regain health and peace of mind, and now after a short lapse of time of six or eight months of comparative comfort, to find him in a worse condition than that he had endured so long previous to castration, made me truly feel for the poor sufferer, and the following lines occurred to me,

The infant's first breath of life returns a cry!
 And man's last breath of life alas is a sigh!
 "Conceived in sin and born in nudity,"
 Man is an heir to death and misery;
 For sin impregnates the seed of man with germs.
 Of maladies of such dire hideous forms
 As make the earth a pest-house of such woe,
 That none can live in it without disgust and awe.

I frankly told Mr. Clark that nothing could be done which would benefit him permanently—and I frankly state here that a duty was neglected in not removing the enlarged lymphatic gland, which was noticed when I introduced a suture at the upper angle of the incision which was made at the time, July, 1873, when Mr. Clark was operated upon for the removal of the diseased testicle. But thinking at the time, and I am of the same opinion now, that the disease of Mr. Clark's testicle was not malignant; my reasons I stated in the preceding lines. I did not deem the excision of the lymphatic gland so considerably enlarged, would compensate the risk of its removal.

Mr. Clark and his wife, regardless of my unfavorable opinion of an operation to relieve Mr. C., of the tumor in his groin, nevertheless were desirous of an operation, and as they thought no doctor was infallible, and that I might be mistaken, Dr. Knapp was called to examine and give his opinion on the case.

Dr. Knapp, after a careful examination of the tumor, gave a doubtful prognosis; and as the patient's health was tolerably

good; as his constitution had not been, apparently intoxicated with the specific poison of the tumor, I consented to operate, and informed Mr. Clark, that, on the first fine day, Dr. Knapp and myself would meet him at a relative of his, and excise the tumor.

January 13, 1874, Dr. Knapp and myself, according to to promise, called on Mr. Clark, and he being still in good spirits and desirous of an operation, chloroform was administered to him until it had the desired effect, when the diseased lymphatic gland was excised thus. An elliptical incision was made through the integument, down to the tumor, which was carefully dissected from its deep connections, using the finger, handle of scalpel, and, occasionally, the edge of the knife. The tumor being one of the deep-seated lymphatic glands, situated directly over the femoral artery, the operation was, consequently, a bloody and a dangerous one. Six or seven arteries had to be ligated; among these the epigastric (at any rate, I judged it to be the epigastric, from its situation, and the violent stream of blood that the vessel ejected.) The tumor having been removed, the parts were thoroughly examined, and as another one of the chain of the deep-seated lymphatic glands was considerably enlarged, it, regardless of its dangerous connections—my former mistake being more vividly in my mind, was also removed.

The patient being very much prostrated at this stage of the operation; and thinking that all had been done that surgery could offer in such a case, all dangers of hemorrhage having been secured against, the edges of the wound were brought together with sutures. A graduated compress and a bandage completed the dressing. Anodynes were to be given to the patient in sufficient quantity to keep him comfortable. Nutritious diet and stimulants were ordered. Dr. Metcalf kindly volunteered to attend to Mr. Clark. Six or eight weeks after the tumor had been removed from Mr. Clark's groin he died.

A careful examination of the tumor, revealed that it was encephaloid.

CASE 1. Mrs. Danhauer, German; age, 63. Epithelioma of the lower lip; lymphatic glands affected with cancer poison. Operation. Death. Disease extending to the pharynx and the larynx.

CASE 2. Mrs. Schilling, German; age, 65. Epithelioma of the lower lip as large as a silver half a dime. Disease strictly local. Operation. Recovery.

CASE 3. Mr. Schilling, brother of the former person; age, 45. Epithelioma of the lower lip, about the size of a silver

half a dime. Operation. Died eight years afterward from pneumonia.

CASE 4. Mr. Schneider, German; age, 55. Epithelioma of the lower lip, implicating about one-third. Operation. Died two years afterward from affection of the larynx and pharynx. I did not tend on the patient in his last illness, and can not give the true cause of his death, but in all probability he died from cancer.

CASE 5. Mrs. Lenen, German; age, 70. Cancer-wart, fissured and excoriated. Could detect no cancer-impregnation of the lymphatics. Lived three years after operation. Died with remittent fever.

CASE 6. Mrs. Nicks, American; age, 49. Cancer of the left mamma, nine months standing. Enlargement of the axillary lymphatics. Removal of the cancer breast. Death from cancer of the abdominal organs six months after the operation.

CASE 7. Mrs. Taylor, American; age, 37. Cancer of left mamma; lymphatics of neck and axilla enlarged. No operation. Death one year after examination.

CASE 8. Mrs. M——, German; age, 60. Cancer of the right mamma. The growth first removed by Dr. Brooker. Reappearance of the cancer three months after the operation. Impregnation of the cancer poison; second operation. Death.

CASE 9. Mrs. Letcher, American; age, 70. Epithelioma of the left cheek. Could detect no enlarged lymphatics. Operation. Three years after removal the lady's health was good.

CASE 10. Mrs. Goodman, American; age, 60. Cancer of the nose. Operation. Recovery. Appearance of fungi. Cauterization. Health good six years after the operation.

CASE 11. Mr. Merker, German; age, 36. Epithelioma of the lower lip as large as a silver dime. Could detect no cancer impregnation of the neighboring lymphatics. Operation. Two years after the removal of cancer the man's lungs became affected. Diagnosed by Dr. Bindewald as tuberculosis. Saw the patient in the spring of 1875. Agree with Dr. B.'s diagnosis. Mr. M. has copious expectoration; the matter coughed up has not the disgusting smell of cancer matter. Not heard of him since.

CASE 12. Mrs. Masterson, American; age, 30. Removed a tumor from the left chest, from three ribs. Diagnosed by two eminent physicians and myself as colloid. Three months after removal of the colloid growth encephaloid cancer appeared about the parts operated upon. Removal. Death from septicæmia twelve days after operation.

CASE 13. Mr. W——, German; age, 52. Cancer of breast. Operation failed on account of constitutional impregnation of cancer poison.

CASE 14. Mr. Howard, American; age, 40. Cancer-wart on cheek, cracked and excoriated. Operation. Cure. This case bore no evidence of constitutional contamination.

CASE 15. Mr. Arnold, German; age, 37. Removed a suspicious growth from near the sterno-clavicular articulation as large as a hazel nut. Patient never had a relapse of the disease.

CASE 16. Reported above.

CASE 17. Mr. R. Dixon, Jr., American; age, 37. Removed, on two occasions, suspicious looking wens. The last operation was performed two years ago. Have not heard of patient since. His father consulted me about a cancer on his (the father's) hand, and died from it a year and a half after the disease made its appearance. An operation was delayed too long to be of any use.

CASE 18. Mrs. Keller, German; age, 63. Encephaloid cancer above the right sterno-clavicular articulation.

On January the 2d, 1876, I was visited by Mr. Keller and his wife, to consult me about a swelling on the lady's neck. The patient was a delicate looking woman, aged 63 years. The following is a brief history of her ailments:

For a number of years after her last confinement, she had been subject to spells of severe cough, and on several occasions she spat up some dark-colored blood. Her health, otherwise, had been tolerably good. For the past three or four weeks her cough had been more troublesome, and now and then she had spells of dyspnœa. Showing me a small swelling at the lower part of the neck, she remarked: "This is the cause of my difficulty of breathing, and the aggravation of my cough." She first noticed the swelling eight days before.

Auscultating the patient's chest, I found nothing particular that would indicate serious lesions of the lungs or heart. Examining her neck, I found a small tumor, about the size of a large cherry, situated directly above the right sterno-clavicular articulation, extending beneath the sternum. Judging from its situation and appearance, I concluded that the tumor was an aneurism of the innominate artery. Auscultating it, I could detect no bruit; pressure simultaneously on the carotid and the sub-clavian artery did not affect the tumor in the least. The lymphatic glands of the neck were of normal size, and there was no enlargement of the cervical veins.

As I could not make a positive diagnosis of the case, I re-

quested the patient to call again in a few days, when I would have the benefit of Dr. Knapp's consultation.

On January the 7th, Mrs. Keller was carefully examined by Dr. Knapp, and again by myself. The tumor had grown very rapidly; it was now as large as an orange. Auscultation, pressure on the carotid and subclavian arteries, careful handling of the swelling, all negatived the opinion that it was an aneurism. Was it an encysted tumor? Its rapid growth favored this diagnosis. Was it encephaloid? There being neither enlargement of the cervical veins, nor of the lymphatic ganglia, nor any notable cachexia and local pain, we were inclined to give it a negative answer. In swallowing, the tumor was raised, indicating attachment to the trachea; the breathing was stertorous. The dyspnœa was sometimes alarming.

We informed the patient and her husband that we could make no positive diagnosis. To their demand whether anything could be done to effect a cure or a relief of her pitiable condition, the only answer was: an operation would, at least, free the patient's life, and even her death, from a most dreadful horror—gradual strangulation. For a cure the prognosis was very unfavorable. If the swelling were an aneurism, an operation might prove to be fatal on the operating table; also, if a solid tumor. If the swelling turned out to be an encysted tumor, the operation would be connected with little danger, and, in all probability, a cure would result.

The patient consented to an operation, and requested a short time to prepare herself for the awful crisis.

January the 9th. Everything being duly prepared for a momentous operation, and Mrs. K. being fully chloroformized, it was pursued in the following manner:

First, the nozzle of a hypodermic syringe was carefully introduced into the swelling; neither water, nor blood filled the syringe. An incision was now made along the sterno-cleido-mastoid muscle, five inches in length, and the envelope of the swelling carefully exposed, and its connections isolated from the surrounding parts. This being done, this tumor was forcibly grasped, and with the fingers, handle of the scalpel, and occasionally with the knife, detached from its deep-seated connections. In doing this, the swelling burst, and a brain-like semi-solid substance escaping, revealed the nature of the growth.

Being thus put in the knowledge of the disease's inevitable tendency—death; and ascertaining that the tumor was attached to the main vessels of the neck, probably, too, to those of the heart; knowing, also, the friable condition of blood vessels

in a malignant disease, we did not deem it justifiable to attempt to remove the malignant growth entire. A free incision was therefore now made into the tumor, its contents turned out, and as much of its matrix removed as the vital structure, with which it was connected, would allow.

The cyst structure of the matrix of the malignant growth resembled that of the thymus gland of a child, and its density was that of scirrhus. This structural appearance of the tumor, its situation, we were able to introduce our index finger, fully three inches along the internal surface of the sternum. The non-enlargement of the lymphatic glands favored the idea that the malignant growth was the thymus gland.

The upper part of the gaping wound was closed with several sutures, the lower left open for drainage. On the third day after the operation stinking suppuration commenced; the wound was washed out with a strong solution of salicylic acid, also of carbolic, but neither disinfected the dreadful stink. Ten days after the operation, spongeoid bleeding fungi prouted from the lips of the wound. Eleven weeks after the operation the patient died. A post-mortem was earnestly requested, but not permitted.

CASE 19. Mrs. Steinhauer, Swiss; age, 50. Cancer of the breast. Removed the cancer growth and eleven enlarged lymphatic glands of the axilla last May. So far has had no return of the disease.

CASE 20. Mrs. Zaan, German; age, 70. Epithelioma of the labia majora and minora, organs of generation. Removal; also of two lymphatic glands of the groin. Two weeks after this operation I again removed epithelial patches on the generative organs. Three weeks after this epithelial patches reappeared; I despaired of success with the scalpel, and recommended the application of ascetic acid. This succeeded in removing the epithelioma on the mucous membrane of the generative organs, but a number of enlarged lymphatics again appeared in the groin, and though I despair of benefiting the patient with the knife, in fact, with any method of treatment, since from the cancer focus the constitution has been impregnated, yet the hypodermic use of ergotin will be tried, and its effects closely watched.

The following two cases I have copied from "Paget's Surgical Pathology" (pages 454 and 586).

CASE 1. "A woman from whom at 51 years of age I removed a cancerous breast of two years duration, and numerous axillary glands, lived and worked hard for 11½ years without any apparent return of the disease, and died with progressive

muscular atrophy of the tongue and pharynx. After death no trace of cancer could be found, except a few very hard white masses in the liver and gastro-hepatic omentum."

CASE 2. "Sir Astley Cooper removed a gentleman's testicle for what was believed to be medullary cancer. He remained well for 12 years, and then died with certain medullary cancer in the pelvis."

Can such cases, as quoted from Paget, be claimed as proof that cancer is a constitutional disease. A few remarks on the above recorded cases I think are not out of place here.

Is cancer a local manifestation of a constitutional disease? or is cancer a local disease whence the constitution becomes impregnated with cancer-poison through the lymphatics? These are very important questions to the surgeon, bearing on so dread a malady as cancer. If it be a constitutional disease, *i. e.*, if, like tubercle it manifests itself in the various organs of the body or on its surface, on account of blood-impregnation of a specific poison, then I think it would be as useless to operate on an organ, or a gland, or the skin, affected with cancer, as it would be in tuberculosis to remove a swollen joint or lymphatic gland infiltrated with tuberculous matter, to cure consumption. But if cancer be a local disease whence the system is impregnated with cancer-poison; that is, if like chancre it intoxicates the system, the local poison being taken up by the lymphatics and conveyed to the various parts of the body, then we may hope—like in syphilis, if we remove the focus (chancre) in time we may prevent the constitutional impregnation and manifestation of the syphilitic poison, that if we remove the local hotbed of cancer-poison in time, *i. e.*, ere the lymphatics have imbibed the malignant germs, to affect a cure.

These are weighty questions for every surgeon to reflect upon, and, I think if he will insist on the removal of every growth, wart, or skin affection in all persons who, either on account of heredity, age, or idiosyncrasy, would lead him to think, or have the least suspicion that the local affection may be or become cancer or canceroid, it is my conviction we will have less fatal cases to report than our journals have hitherto been obliged to do.

But if cancer be a local manifestation of a constitutional disease, whose germs are in the blood, as maintained by Paget, Gross, and other eminent and more recent writers on the pathogenesis of cancer, then the surgeon may as well lay down the scalpel in despair when called upon to cure this dreadful malady.

Art. 2.—Foreign Bodies in the Rectum.

By C. S. MUSCROFT, M. D., Surgeon to the Cincinnati Hospital and St. Mary's Hospital.

A Paper read before the Ohio State Medical Society.

But few writers on surgical treatises have omitted to mention foreign bodies in the rectum, some relating many interesting cases, others, but few, while almost no mention is made of the subject by otherwise eminent writers, and this may be said of authors who have written excellent monographs on the diseases of the rectum.

As a rule, it is very rare to met with foreign bodies in the rectum, and most of my surgical friends with whom I have conversed, have never met with a single instance in their own practice. Among the surgeons of this city I have not learned of more than three.

It is astonishing what a very great variety of foreign bodies have found their way into the rectum, either by accident or design; sometimes by the unaccountable wish and act of the patient, sometimes by the vicious and malignant design of others. The largest collection of cases of this kind is reported by Paul F. Eve, M. D., professor of surgery in the medical department of the University of Nashville, Tenn.

Many cases not related in this paper can be found in surgical works and the different medical journals, but enough are given to illustrate the great interest and importance the subject is entitled to.

Foreign bodies find their way into the rectum by three different modes. First, they may lodge there after being swallowed and passed through the other portions of the intestinal canal, and many consist of pieces of bone, pins, needles, nails, sealing-wax, cinnamon bark, rings, ferrules, cherry stones, peach stones, plum stones, pieces of gristle, tendon, coins, pieces of ivory, metal, or cork, and many other substances. Secondly, they may form in the intestines themselves, by diseased action from some kind of food, such as oat-meal, or of medicines, as magnesia, and constitute what are called intestinal concretions. Sir Benj. Brodie mentions a case of concretion of magnesia in the bowels of a lady patient that weighed three pounds. Parr, in his medical dictionary, mentions a case in which a calculus having formed in the intestines, was found in the rectum. These concretions sometimes consist of gall stones in large quantities, &c. Third, they may be introduced

through the anus, for the purpose of relieving constipation, or may be forced in by malicious intent, while the person is sleeping from the effects of inebriation, or they may be introduced for the purpose of committing suicide, and may consist of bottles, pots, cups, a knitting sheath, a shuttle with a ball of yarn, a pig's tail, tumblers, a beet, a forked stick, a teacup, a diamond breast-pin, a piece of reed, &c.

Ashton says, "Foreign bodies that have been swallowed do not usually occasion much inconvenience in their passage through the intestinal canal, though it is sometimes marked by considerable irritation. Should the substance not be discharged with the fæces, but become entangled in the rectum, it will give rise to inflammation, accompanied by tenesmus, violent straining (bloody stools), and perhaps prolapsus, by perforation of the tissues of the intestine it will lead to the formation of abscess and fistula, or partial or total obstruction may be produced, followed by enteritis or peritonitis. These effects will be greatly influenced by the size, form, shape, and nature of the substance. When intestinal or fæcal concretions are the cause, the symptoms are gradual in their accession, and are preceded by signs of derangement of the stomach, liver and bowels; at first, the local disturbance is marked by a feeling of weight, distention, and pain in the rectum, followed by obstinate constipation, great straining to relieve the bowels, attended with more or less prolapsus of the mucous membrane, and congestion of its vessels, and if the patient be not relieved, enteritis, peritonitis and death will ensue. When the foreign substance has been introduced through the anus, the symptoms are more rapid in their development, and the bowel has at the same time been injured, they will be more or less serious in their character, in proportion to the extent and nature of the lesion.

In the fourth edition of the system of surgery, by Prof. S. D. Gross, he says, in the *extraction* of foreign substances from the rectum, the surgeon is governed by the circumstances of each individual case. In general, when they are not situated too high up, they may readily be removed by the finger, or with a pair of forceps, the anus being previously dilated with the finger or speculum. Large alvine concretions may require to be crushed before they can be withdrawn, but such an expedient can rarely be proper, much less the division of the sphincter muscles. Should the latter, however, become necessary, on account of the extraordinary bulk of the foreign body, its awkward shape or slippery surface, the incision should be made in the direction of the coccyx, as less likely to cause hem-

orrhage and other mischief. When the substance has slipped very high up into the bowel, the extraction may be aided by counter-pressure upon the hypogastrium, thereby steadying the extraneous body, and enabling the surgeon to take better hold upon it. To render the pressure effective, the bladder must previously be emptied. Sharp, rough, pointed, or spiculated bodies may require to be sheathed before removal, to prevent mischief to the mucous lining. In the celebrated case of Marchetti, a strong cord was secured to the projecting extremity of the pig's tail, after which a piece of reed was slipped over it into the bowel, which was thus defended from injury. An anal speculum, or hollow bougie, open above, would answer a better purpose, or, in absence of this, a large rectum-bougie might be used. A long bone, stretched obliquely across the bowel, with the ends firmly imbedded in its walls, may require to be broken at its middle before it can be removed; or, if it is very thin and not too hard, it may be cut in two with a pair of scissors, and each piece extracted separately.

Hardened faecal matter should be softened by repeated injections of warm water, or some mucilagenous fluid, and afterward extracted with a scoop, or spoon, or handle of a long slender pair of lithotomy forceps. The operation may also be performed with a very stout double wire, bent into a hook at the extremity, or, what is frequently better than all, the fingers. Ascarides may be dislodged in the same manner, or they may be destroyed by filling the rectum with some stimulating liquid, as a mixture of spirits of turpentine, aloes, or garlic juice, a popular remedy, often employed with much benefit.

Dr. Geo. Bushe, of New York, who is the highest authority upon the early literature of diseases of the rectum, says: "The instruments necessary for extracting these bodies, are blunt hooks of different sizes and shapes, a lever, gimlet, cutting forceps, strong scissors with probe points, a six-inch narrow saw, wooden gergeret, polypus and lithotomy forceps of different shapes and sizes, a speculum, strong waxed ligatures, metallic tubes of various length and size, and probe-pointed bistoury," to all of which, the crooked finger and small hand are admirable adjuncts.

The doctor narrates the following case: Having placed the hips of a delicate lady over the edge of the bed, and bent her knees toward her chin, while she lay on her back, he introduced a strong and long lithotomy forceps, with which cautiously laying hold of the concretion, he slowly and steadily extracted it, with no more injury than slight laceration of the

mucous membrane, although on measurement it proved to be (a large concretion) six inches and three quarters in circumference and two inches and a half in length. The bowels were then freely evacuated by injections, leeches and fermentations were applied to the anus, the recumbent position was enjoined, and a speedy recovery ensued.

In his valuable monograph, he relates the following cases: Saucerotte withdrew a piece of wood three inches in length and two in width with a cork-screw, which he inserted into the wood, while he steadied it with the forefinger of his left hand. Bruchman performed a similar operation with a gimlet. Bushe.

Nolet, surgeon to the king of France, and Marine Hospital at Brest, relates the following curious case: A monk, wishing to get rid of a violent colic, introduced into the rectum a bottle of Hungary water (these bottles are generally very long), through the cork of which he had made a small opening, to permit the fluid to flow into the intestine. In his anxiety to perform the operation well, he pushed the bottle so far that it completely entered into the gut. He could neither go to stool or receive a lavement. A *sage femme* failed to insert her hand; the forceps and speculum were tried in vain; however, a boy, from eight to nine years of age, succeeded in introducing his hand, and removed the bottle. Bushe.

Dessault, in endeavoring to extract a porcelain jelly-pot of a conical form, and about three inches in length, which had been introduced for eight days, placed on two opposite points of its diameter two strong pincers, which however fractured it so that he was compelled to extract the pieces in succession. He might have been less fortunate had the substance been glass. Bushe.

Morand reports the two following cases: A man, about sixty, presented himself at the Hospital de la Charité, complaining that the pipe of a syringe had entered his rectum, and he could not discharge it. Gerard introduced his finger and felt the foreign body, which he removed with a lithotomy forceps. It proved to be a large knitting sheath of boxwood, about a half a foot long.

A weaver, about sixty years old, who for a long time had suffered from constipation, having heard vaguely of the efficacy of suppositories in children, introduced a shuttle, furnished with its roll of yarn, into the rectum. After five days, being unable to withdraw it, he presented himself at the Hotel Dieu for assistance, when Bonhomme extracted it with a lithotomy forceps aided by his finger. By injections, fomentations and leeches, the cure was completed in twenty days. Bushe.

Hevin relates the two following cases: M. Quesnay pushed a bone, which was arrested in the œsophagus, into the stomach. Afterward this body presented itself near the orifice of the rectum. The patient, tormented with pain, called on Quesnay, who introduced his finger into the anus, and found the bone placed obliquely across the gut, with its inferior extremity fixed into its walls. He passed a forceps along his finger, and having seized the bone superiorly, lifted it up, thus disengaging its inferior portion. He then grasped it lower down, and removed it without difficulty or pain. Bushe.

Faget was called to see a man who complained of severe pain in the fundament and bladder, with retention of urine. On examination of the rectum, he found a foreign body situated transversely and fixed firmly into the intestine. He introduced a forceps, seized and easily withdrew this body, which proved to be a mutton bone, about as thick as a quill, seventeen lines long, and sharp at both extremities. The patient had swallowed it eight days before. Bushe.

“Meeckren mentions a case, in which the jaw-bone of a Turbot, of great length, was arrested in the rectum.”

After giving the symptoms, which were much the same as in the above case, “he extracted it with his fingers, the process being both difficult and painful, The patient remembered that he had swallowed it eight days previously.” Bushe.

Thiandiere details the case of a man, aged twenty-two, who, with a view to overcome costiveness, introduced a forked stick into the rectum. This stick was five inches long, one prong was an inch and a half longer than the other, and they were separated to the extent of two inches, each prong being about four lines in diameter, and the stem formed by their union about half an inch. He inserted the stem first, and when the short prong had entered the bowel, he endeavored by dragging on the long one to force out the indurated fæces. In this ingenious way, it is unnecessary to say, he failed completely. The pain being very severe, he ceased the manipulations, and, finding it impossible to withdraw the fork, he forced the long prong completely within the anus, with the extraordinary idea that it would be consumed with the food. Fearful to divulge the nature of the case, he bore his sufferings in solitude and despair until the abdominal pain and difficulty in urinating led him to seek the aid of Thiandiere, who on making an examination soon discovered the foreign body, but it was so high up that he could scarcely touch it. He endeavored, but in vain, to extract it with a forceps passed through a speculum. The happy idea then struck him of introducing his hand, which,

having washed out the rectum, he insinuated finger by finger, Conducted by the long branch, he succeeded in reaching the bifurcated stick, and disengaged it with difficulty from a fold of the mucous membrane, in which it had become entangled, then compressing the prongs together, he safely removed it. Bushe.

Meeckren also mentions a case which occurred to Tholux, in which the jaw-bone of a fish was situated across the rectum. This surgeon cut it across with a scissors, and then extracted the two portions with ease. Bushe.

In the *Miscellanea curiosa sive ephemer, adad, natur, curios*, dec. III, ann. II, obs. VIII, we read of a case in which a similar course was pursued for the extraction of the jaw-bone of a dog. Bushe.

Moreau mentions the case of a woman, aged thirty-four years, who for a long time, but particularly for four years, had labored under a sensation of considerable weight in the fundament. Her complexion was pale and at times yellow; she was subject to frequent attacks of colic, and her stomach was so weak that it scarcely retained any nourishment. Her efforts to defecate were sometimes so considerable that they were followed by convulsions and cold perspiration. So much did she dread the efforts, that she resisted the calls of nature, and consequently seldom had a motion oftener than once in fifteen days or three weeks, when she moderated the violence of the bearing down pains, and facilitated the issue of the fæces, by resting the fundament on a round stick. On examining the rectum he perceived a solid body, apparently of large volume. He injected almond oil into the intestine, and then introduced a lithotomy forceps, with which he seized the concretion; but in the extraction it broke; however, the fragments were easily removed. This concretion was of the size of a large pippin. Bushe.

Zacutus Lusitanus records a case in which a leech, about to be applied to a hæmorrhoid, made its way into the rectum. He injected onion juice into the intestine, and the leech was soon discharged, almost dead. He recommends injection of ox gall or castor in similar cases. Bushe.

Richard Quain, in his valuable monograph on the diseases of the rectum, mentions the following cases:

• Morand says: A gentleman who had suffered habitually from constipation, "by the advice of a practitioner whom he consulted in Paris, daily introduced into the bowel a piece of flexible cane (about a finger's thickness), where it was allowed to remain till the desire to evacuate fæces came on." For more

than a twelve month this plan succeeded; but at length, having been passed hurriedly, the stick "was sucked into the body," and it slipped beyond reach. It was in seven days; after that the surgeon was called. The lower end of the stick was beyond reach, but it was touched by a bougie, and the opposite end was "felt projecting midway between the illium and the umbilicus on the right side," and here the slightest pressure caused pain. The stick was removed by means of the hand passed into the bowel.

A man, aged 32 years, had suffered for a considerable time from nausea and vomiting. In the middle of the abdomen was a tumor, lumpy on the surface and movable under the pressure of the hand. He died with peritonitis. The lower end of the illium, which was dilated into a pouch as large as the head of a fœtus, containing 120 kernels of plums and cherries, and 92 bullets. Quain.

A female, aged 41, well formed, of good intelligence, mother of several children, had been attacked at intervals with sickness and vomiting, sometimes blood. In examination of the body, pins were discovered in the stomach, weighing nine ounces; and in the duodenum, where they were lightly packed, the quantity found amounted to about a pound in weight. The pins were bent head and point together in a thimble, from which they were taken with the tongue. It was ascertained that the person had a habit in her childhood of eating starch and slate pencils. Quain.

Mr. Quain says: In 1842, the late Mr. Bolton Hodgson, of Chesham, a clear-headed and skillful practitioner, sent him a preparation taken from the body of a person, in whom death had resulted from the opening made by a pin in a large artery. Then follows the history of the case, and the artery wounded was found to be the common illiac.

As an instance where a foreign body in the rectum may cause stricture, Dr. Barlow recorded the following: A female, aged 46, was admitted into Guy's Hospital, having suffered from constipation during thirteen days. Here follows the symptoms of the case, but I will only mention the *post mortem* appearance of the rectum. Recent lymph was found, glueing the intestines together; a stricture was discovered at the commencement of the rectum, ten inches from the anus; it had a greenish color, and it was very hard; it admitted the passage of the little finger, and contained a small fish bone. The intestine above the stricture was distended with fluid; the remaining viscera were healthy. Quain.

Another fatal case of stricture of the rectum, four inches

from the anus, is also mentioned, which was caused by a small fish bone an inch in length, apparently that of a flounder.

Still another fatal case of stricture, the result of a small fish bone, at the distance of six inches from the anus, is mentioned by the same author, and is preparation 1255 in the Museum of the College of Surgeons.

The last case he mentions says, a gentleman applied to the second Monro "on account of a large flat tumor in the cellular substance of the sphincter, which created much uneasiness." He was not relieved, but in "eighteen years" afterward the patient perceived a small hard substance, which proved to be a small bone."

In Velpeau's *Operative Surgery*, edited by the late Prof. Geo. C. Blackman, gives some interesting modes of procedure for removing foreign bodies from the rectum.

He says: *Calculi*, giving rise to constipation, have been extracted from the rectum by Schmucker, by means of the forceps; and also by the ordinary forceps, after having broken them up, by Chambon and M. Miller. J. S. Buzzoni removed from it a coffee cup by means of whale-bone busk.

Plater says seriously, that a mole, introduced alive into the rectum of a peasant, had become so strongly attached to it that it could not be extracted, except by drawing upon its tail after having killed it. Velpeau.

M. Cazenave was obliged, in one case, to extract a broken gourd from the rectum. Velpeau.

A pestle which could not be withdrawn without difficulty by means of the forceps, caused rectitis and death in a patient of M. Dor, who succeeded better in another case in extracting a fork, the teeth of which were directed downward, and who states that he removed a cologne water bottle in a third patient by means of Hunter's forceps. Quain.

Wm. Fergusson in his treatise on practical surgery, says that Mr. Russell, of Aberdeen, relates a case in the *Medical Gazette* for the 19th of August, 1842, of an individual who seemingly has a remarkable propensity for introducing stones within the anus, he (the patient) himself had extracted, after the surgeons had failed, one weighing thirty-two ounces and another had been removed with midwifery forceps by Dr. Moir six months previously, weighing twenty-nine ounces. In the same journal, February, 1842, there is a case related, where Mr. B. Phillips extracted, after the patient's death, a portion of a walking stick, and several examples of a similar nature are referred to.

Although it does not belong strictly to the subject of foreign

bodies in the rectum, I will relate the following cases, reported by T. J. Ashton, of injury to the part. He says, by awkward attempts and the application of too much force in endeavoring to pass a bougie up the rectum, its tunics have been torn or perforated. By ignorant and clumsy nurses, enema pipes have been thrust through the rectum and peritoneum, and the fluid injected into the abdominal cavity. In the museum of St. Bartholomew's Hospital is the preparation from the body of a patient whose death was occasioned by the perforation of the rectum by a metallic clyster-pipe and the injection of a pint of gruel into the peritoneal cavity. In the same museum are two other preparations of the rectum, uterus, and vagina, and the large intestines of a child. Ten months before her death, in an endeavor to administer an enema, a clyster-pipe was forced through the adjacent walls of the rectum and vagina. At the part thus injured, there is a small depression in the wall of the vagina, and a long, pale, and irregular cicatrix in that of the rectum. Near the cicatrix, also, there are traces of small healed ulcers of the mucous membrane of the rectum. Just below the cicatrix, at a distance of about an inch from the margin of the anus, the canal of the rectum is reduced to an eighth of an inch in diameter, and the adjacent tunics are indurated. Above this stricture the intestine is greatly dilated, and contained a large bucketful of fluid fecal matter.

Ashton says, Bushe mentions having seen a case of perforation of the recto-vaginal septum by the end of an umbrella, on which the patient was in the act of sitting. He also says the rectum is sometimes perforated by unskillful attempts to introduce a catheter into the bladder, and relates a case where "he discovered the point of the instrument had been thrust through the urethra immediately anterior to the prostate, and has passed into the rectum."

Ashton says, "the position of the patient (submitting to the removal of a foreign body from the rectum), should be on the side, with the knees drawn up toward the chin and the buttocks projecting over the edge of the bed or couch, or, if deemed more convenient, he may be placed in the same position as for the operation of lithotomy."

He removed an ivory tube from the rectum of a woman, which had been forced into it while receiving an injection; he saw the patient within half an hour from the time of the accident; on making an examination, the tube was felt immediately above the margin of the internal sphincter, it was extracted without difficulty, a pair of œsophagus forceps being used for the purpose.

In another patient, a physician, he removed a piece of bone having very short angular corners, and says, if it had not been removed early, doubtless it would have perforated the intestine.

He says, in May, 1853, Mr. Lacy, of Pool, removed piece-meal from the rectum of a lady, a concretion, "at least fifteen inches in circumference." The outer part of it consisted of concentric layers of what looked like red sandstone, and which proved, on examination, to be a compound of iron and magnesia. The interior was a softer mixture of the earthy ferruginous matters with many thousands of strawberry and other seeds.

Mr. Jones, of Llandyssul, removed three concretions from the rectum of a farmer, two of them were as large as a man's fist. "The concretions consisted of layers of a substance of a brownish color, much harder than leather, each of them containing a plum-stone for a nucleus."

Tuffell, in 1813, removed a flask of crystal from the rectum, but was obliged to break it before he could accomplish the removal. Ashton.

Constance mentions the case of a man who fell on an inverted blacking pot, and the whole of it forced up the rectum. Attempts were made for an hour and a half to dilate the sphincter, and remove it with a forceps, but in vain. The small end of an iron pestle was then introduced, till it touched the bottom, and being held firmly, was struck with a flat iron. At the second blow the pot was broken into several pieces, which were removed piece by piece, by the forceps or fingers. Next morning he labored under severe intestinal inflammation, with incessant vomiting and excruciating pain all over the whole belly; he died at night. The pot was two inches and three-eighths in diameter at the brim, an inch and a half at the base, and two inches and an eighth in depth. Ashton.

Another case is quoted where a Greenwich pensioner introduced a large plug of wood into the rectum, for the purpose of stopping a diarrhœa, where it remained eight days. It was with great difficulty extracted by Mr. McLaughlan, surgeon to the Greenwich Hospital. Ashton.

In June, 1842, a man, aged 60, was brought to King's College Hospital, laboring under obstruction of the bowels, which he attributed to having eaten a large quantity of peas six days previously. He expired while being carried in a chair up to the ward. On examining the body after death, upward of a pint of gray peas were found in the rectum. They had been swallowed without mastication, and had undergone no alteration in passing through the alimentary canal,

except becoming swollen by warmth and moisture. The urethra was pressed upon, and he had retention of urine for four days. The bladder was enormously distended, its apex reaching the umbilicus, and its base nearly filling the brim of the pelvis. Ashton.

Mr. Lawrence had a case in which a man had broken the neck of a wine bottle into his rectum; he gradually dilated the sphincter, introduced his whole hand, and removed it. Ashton.

Mr. Ferguson removed a bougie from the rectum of an old gentleman who was in the habit of using such an instrument; on one occasion he passed the bougie within the sphincter, and could not withdraw it. Several unsuccessful attempts had been made to remove it, previous to Mr. Ferguson seeing the patient; with some difficulty he succeeded in seizing the end with a pair of lithotomy forceps, and withdrawing it. The bougie was nine inches in length, and an inch in diameter. Ashton.

The following case is taken from Practice and Principles of Surgery, by H. H. Smith, M. D., of Philadelphia: In a case reported by Ruschenberger, of the U. S. Navy, where a glass goblet, three and a half inches high, with a brim two and five-eighths, and a base one and seven-eighths inches, was introduced into the rectum of a Chinaman. The whole was removed by Parker, of Canton, by crushing it with a strong forceps, protecting the parts with folds of cloth, and removing the smaller fragments with a teaspoon, and a similar treatment would be requisite for the removal of all fragile articles. The particulars of the above case are given in the collection of remarkable cases in surgery, by Paul F. Eve, M. D., Nashville, Tenn., from which also the following cases are taken. In most of the cases related in the Dr.'s book, the particulars of each case are given at considerable length, but as this paper is intended merely to give the case, the minutiae are omitted, unless great interest be added by the process and circumstances of their removal, and the instruments used.

The next being a case of more than usual interest in all its features, is transcribed in full:

A tin tumbler pushed by the patient into the rectum; then passed into the colon; failure to remove it, and death of the patient.

The patient introduced the tumbler on the 4th of April, 1834, causing its entrance into the bowel by sitting upon it. The tumbler being drawn upward with the returning intestine, attempts were made by the patient to extract it, with his fin-

gers, and by the means of a "shoemaker's forceps." With these he had considerably broken and flattened the edge of the base or rim of the tumbler, and forced it beyond the rectum into the colon. It was found in this position by the physician, who summoned Dr. George Moode, of North Andover, Mass. Dr. M. introduced his hand and forearm into the rectum, seized the tumbler and made a powerful, but unsuccessful effort to extract it. The blunt hook was next tried, without extracting the tumbler, although it was brought down so that it could be seen. Owing to flattened state, it hitched in the plicæ of the intestine. Several physicians and surgeons were called in consultation; among others, Dr. Joseph Kittredge, of Andover, and Dr. Whiting, of Haverhill. No efforts at extraction by the hook or fingers were of any avail; although the tumbler was brought into view and seized, powerful efforts being made to disengage it from its situation. One of the practitioners again introduced his hand, but could not bring the tumbler away. The patient asked to have his abdomen opened, and the foreign body thus removed. He was told that this would produce certain death. A proposition to divide the levators ani was negatived by Dr. Kittredge, who feared fatal hemorrhage. The patient lived about three days after this. His tongue sloughed, and there was gangrene of the large intestine. The tumbler was extracted after death; it measured $3\frac{1}{2}$ inches in length, $3\frac{1}{2}$ in width in the direction of the flattened part, and 2 inches across its base; it would hold nearly three gills.

An immense number of plum-stones (about two hundred and eighty) removed from the rectum, by R. Hazelhurst, M. D., of Brunswick, Georgia.

The patient was a strong negro, aged about 25, who took into his head to eat very freely of plums, stones and all, as he says (and probably truly), without eating anything else during the day, and at two different times he was ordered to take a dose of castor-oil, which not producing the desired effect, I had recourse to artificial means, the introduction of the forefinger, with the intention of scooping them down with it. The rectum was so sore that he could not bear the slightest pressure. Four or five were removed by several injections of cold water, and six or seven with the finger. Another dose of oil was given the next day, which brought away some more, and purged him excessively; he was seen on the third day when he was suffering greatly. The rectum was completely plugged up with the stones, only allowing liquid fæces to pass through their interstices. Having run away, he was again found on

the fourth day; when found, he was lying on the ground, so much reduced from hunger and suffering that he was unable to move, and had to be carried home. There was no time to be lost. I had him tied, introduced my finger, and sliding a pair of forceps, rounded and grooved at the extremities, alongside, was steadily employed for the space of three hours, in removing the plum-stones one by one, until one hundred and thirty were counted, besides some forty that passed afterward, and more before, which were not counted, but have made them altogether amount to two hundred and forty. The extraction of each stone occasioned exquisite pain. Most of them were covered with blood. Dysenteric symptoms ensued, which ceased with the removal of the cause and appropriate treatment. By measurement it is found that he must have eaten almost ten quarts of plums, say a peck, at a moderate calculation. Eve.

Dr. Horace Nelson, of Plattsburg, New York, removed a cow's horn, five inches long, from the rectum of a patient with a strong pair of forceps. Eve.

M. Maisonneuve relates the case of a man, a patient of M. Cloquet, who had introduced a tumbler into the rectum. In order to extract it, M. Cloquet dilated the anus with six fingers, which, being insufficient to dilate it to the required extent, M. M. Maisonneuve and Huguier, who were present, each added four fingers. The *fourteen fingers* enlarged the anal orifice to such a degree as to allow the tumbler to be seen; the bottom of the tumbler was directed upward, the open part downward. The man was then told to bear down, as if in defecation, and the glass was expelled. This case is a remarkable example of the extent to which the anus may be dilated without injury to the sphincters. Eve.

M. Cloquet also removed a Flemish *beer glass* (shaped like our champagne glasses), from the rectum. The glass was seized with the forceps, but broke into many pieces. In order to get the lower part out, it was found necessary to turn it, as the open broken part was turned downward. The man died in a few days. Eve.

Dupuytren removed a square preserve pot from the rectum, the open part being superior. He seized hold of the rim by means of a blunt hook, covered with chamois leather, and thus extracted it. Eve.

T. M. Harris, M. D., of Harrisville, Virginia, removed from the rectum of a patient a half pint flask, which had been introduced to relieve an attack of piles. The instrument used was a pair of forceps, made somewhat after the fashion of the obstetrical instrument, with blades about seven inches long

by about three-fourths of an inch wide, and handles eight or ten inches long. This instrument he improvised and had made for the occasion. The instrument, however, slipped from the bottle, after being well greased and introduced, one blade at a time. He then broke the bottle and removed the glass piece-meal, requiring three hours to accomplish his object.

In about nine months afterward he removed a beet seven inches long from the rectum of the same patient, by means of the forceps which he had had made for his first operation. Eve.

A large piece of wood was removed from the rectum after remaining three days. The manner of the operation is not mentioned. It was seven inches long and seven inches in circumference, where two projecting knobs, each as large as half a fowl's egg, had formed the commencing division of two new branches. It was removed by a pair of obstetric forceps, which, when grasping it, the dilatation extended to ten inches in circumference as they passed out from the rectum. The stick had been introduced, with a view, by the process of rubbing, to disperse a stone in the bladder. Eve.

Another case is mentioned where no name is given (both of these were copied from the *Lancet*, the first for 1835 and this for 1849), where an accumulation of fish bones in the rectum has caused death by hemorrhage.

This case is so important that it will not admit of the slightest abbreviation:

In December, 1848, a peasant was admitted into the hospital of Orvieto, in the last degree of feebleness and prostration. Under the idea that he would save the trouble and expense of eating, he had plugged his rectum with a piece of wood. This was nine days previously. Many attempts were made in the interval to relieve him of the awkward predicament, but without success. After his admission, M. Riali, of Italy, reiterated these attempts, but their only effect was to force the foreign body further from the outlet, and to increase the impaction; already this body had passed beyond the reach of the fingers. In the circumstances it was determined to expose the descending colon by cutting through the abdominal parietes. Having done this, the attempt was made to force the piece of wood from the termination of the colon, at which it was distinctly felt, into the rectum, and so downward, and again without success. An incision was therefore made into the bowel, and the foreign body—the dimensions of which were about six and one-fourth inches by one, and the form of a

bluntish cone — was extracted through the opening. The edge of the wound in the intestine and parieties were united by suture and cold applications placed over the usual dressings. During the first few days there was much flatulent distention of the abdomen, with considerable sickness and vomiting, for which symptoms three bleedings, three applications of leeches, and some doses of croton oil, were thought necessary. The bowels acted on the fifth day; the wound had healed on the fourteenth, when the patient was well, though for the sake of prudence he was kept two months in the hospital. And now, two years and nine months afterward, he continues with eating and drinking all before him, and no longer disposed to distress himself on the ground of his appetite. *Idem.*

The following case is of so much notoriety, that it has been mentioned in nearly all the works on surgery, and particularly those on diseases of the rectum :

A party of debauchees (students of the University of Göttingen), wishing to play a trick upon a woman of pleasure, cut short the bristles of a pig's tail, which they forcibly introduced into her rectum, the thick end upward. Severe pain was the immediate consequence; the mucous membrane was irritated or perforated by the bristle stumps, and tenesmus set in; a portion of three inches in length projected beyond the anus. The patient's state was very distressing. M. Marchetti was called upon on the sixth day. He conceived the idea of preparing a piece of cane so as to introduce one end of it into the rectum, and thus isolate the foreign body from the wall of the intestine. He then attached a firm cord to the end of the pig's tail, which was passed into the tube; the latter was gently pushed up into the rectum, and when its extremity had reached beyond the extremity of the foreign body, both were extracted together without difficulty or pain. The patient felt immediate relief, and all unpleasant symptoms, the vomiting and fever, quickly disappeared. *Eve.*

Another case, which happened to Prof. Van Reinlein: the point of a bit of wood could be felt under the false ribs, and the respiration was extremely difficult and painful. The portion of wood was extracted with a forceps. Several inflammatory symptoms followed, but they were removed by proper treatment. *Eve.*

Dahlencamp removed a piece of wood that had been driven into the rectum by accident, after remaining a year and producing fistulous abscess. *Eve.*

In one case, Desault was forced to break up a chimney

sweeper's scraper with a lithotomy forceps and then extract it. Eve.

Kern and Walther have each extracted a shoemaker's pincers from the rectum. Eve.

Tumor in the rectum containing the debris of a fœtus; extirpation.

M. Bouchacourt, chief surgeon of the Charite of Lyons, communicated to the Academy of Sciences, on the 26th of August, 1849, the case of a little girl, six years of age, from whom a tumor of the rectum was extirpated, which contained the debris of a fœtus. This case belongs to the *endocymian monsters* of Geoffroy St. Hilaire. Since the case related by Velpeau, in 1840, this is the only monstrosity of the kind which has required a surgical operation. The tumor was removed by excision and ligature. Eve.

The following letter addressed to me explains itself:

CINCINNATI, May 29th, 1876.

My Dear Doctor: I offer the following contribution to your collection of cases of foreign bodies in the rectum. Only interesting as showing the cunning device of a patient suffering from delirium tremens. Some years ago I was attending a well-known and popular merchant in this city for an attack of delirium tremens. At my early visit one morning, I asked him how he felt; he replied, I would feel very well if it was not for all those pins in my fundament. I asked him what he meant; he said my *backside* is full of pins and they annoy me greatly. Thinking some local irritation had given direction to his halucination, and that a pretended effort to remove the pins would remove the foolish impression, I directed him to turn upon his side, and I would take them all away; upon separating the buttocks and closely examining the anus, I discovered, to my utter astonishment, just visible, what appeared to be the point of an ordinary pin—seizing it with a pair of forceps, I succeeded after a good deal of resistance from the sphincter, and pain to the patient, in extracting a *large cluster diamond breast-pin*, which I recognized as one that usually adorned his bosom. Holding the pin before his eyes, I asked him how it happened to have been in so strange a locality. After a moments bewildered gaze, his countenance brightened up, and he told me that during the night his room was full of robbers, taking everything they could lay their hands on, and seeing his jewel sparkling in his shirt-bosom, he hastily removed it, and placed it in what he considered a safe hiding-place. The patient recovered from his delirium tremens, and experienced

no inconvenience from the presence or removal of the foreign body, and to the day of his death, which occurred some years subsequently, the jewel glittered on his bosom, an amusing reminder to those of his acquaintances who knew its strange history.

Truly your friend,

A. S. DANDRIDGE.

Some years ago an old German woman, aged about 70, was placed under my care for treatment, at St. Mary's Hospital. She had suffered for many months from the effects of procerdentia uteri. When I saw her, a large part of the uterus extended beyond the vulva. Previous to the prolapse of the uterus, she was subject to constipation of the bowels, attended with tenesmus. This condition she thought had produced the state of the uterus already mentioned, and to relieve it (after trying many different medicines), she had been persuaded by some of her friends, to introduce into the rectum a tube made of reed, or common fishing-pole, about ten inches long and three quarters of an inch in diameter. At least one-half of the tube was in the rectum and was retained by tapes fastened to bandages round the body and hips. When presented to me, she had worn this tube for about three weeks, the parts being in a very filthy and disgusting condition, and at the same time appearing ludicrous in the highest degree. I told her before I could do anything for the womb, it would be necessary to remove the pipe from the rectum and cleanse the part, so that I could make a proper and thorough examination. This however, she positively refused to do, saying if the tube was taken out, her bowels would become stopped altogether and she would never be able to get them open again, and rather than submit to an examination and treatment, left the hospital.

It has been shown, from the narration of the foregoing cases of foreign bodies in the rectum, that many of them can be removed with safety to the patient, and without very great difficulty; while others, although subjecting the patient to great danger, which, however, the necessity of the case engenders, must be met promptly, as the only means by which the life of the individual possibly may be saved, and requires the greatest skill on the part of the surgeon.

The question presents itself as to what extent the more serious operations are justifiable. The patient of Mr. Riali, before mentioned, is an excellent illustration of the extreme measures the surgeon is compelled to resort to, and if laparotomy had been performed in the case of Dr. Geo. Moode,

of North Andover, Mass. (which was insisted upon by the patient), might have terminated as favorably as the one in the care of the Italian surgeon. Laparotomy, in cases of this sort, can not subject a patient to any more danger than in others where it is not only deemed expedient, but frequently successful, and, therefore, should be undertaken where the circumstances demand it, as in the two before alluded to. There are no cases the surgeon is called upon to relieve, that more urgently call into requisition the skill, sound judgment, inventive ability, expediency, prompt action, and dexterity of the operator than these.

Art 3.—Traumatic Injury of the Eye.

By W. R. AMICK, M. D., Cincinnati, O.

December 25th, Charles W——, æt. 28, thought that he would show forth his patriotism by giving an expression of his feelings with an old shot gun. After he and a friend had mysteriously passed a bottle to and fro between them a few times, W. stated that he was happy, and would now proceed to celebrate the occasion. He accordingly took the old shot-gun, which had not been used for more than twelve months, and proceeded to charge it very heavily. When once loaded he remarked to his friend that he had better stand to one side, as the d—d thing might burst. He fired upward, holding the gun at an angle of about forty-five degrees. At the same time that the report was heard pieces of the gun struck W. in the face, knocking him backward. The barrel struck his friend, and knocked him down also. W. received a considerable shock, and was unable to get up for a few moments. When his companion saw the bloody and powder-burned condition of his face he immediately reported him mortally wounded.

I saw the patient a few hours afterward, and found a lacerated wound of the right lower eyelid. The wound began on the margin of the lid, about two lines external to the puncture, and extended downward nearly half an inch, then it turned at a right angle and extended outward for nearly an inch, involving the whole thickness of the lid throughout its entire extent. The flap thus formed hung down over the cheek, the eye pre-

senting a ghastly appearance. The conjunctiva was lacerated and presented several spots of ecchymosis. There were three small wounds on the cheek, and a larger one running across the supra-orbital region. The iris was dilated, and the anterior chamber contained blood. There was a small detachment of iris at the upper and inner portion of the periphery. The iris presented a reddish cast, the other being brown. He complained of a dull, heavy pain in the right eye and right side of his head. Sight in that eye was very much diminished, being able only to distinguish large objects. The iris did not respond to the stimulus of light either with or without having the other eye covered.

The first thing we done was to cleanse the wound, and then replace the flap and hold it in position by means of sutures and strips of adhesive plaster. The patient was ordered to keep quiet in a darkened room, and keep cold applications upon the eye. The next day there was some swelling of the lower lid, and a small amount of suppuration from the wound. The blood in the anterior chamber was more marked, and he was not able to distinguish objects of any kind. On account of the pain he was ordered morph. sulphate, gr. $\frac{1}{4}$, every three hours. Cold compresses were then made to the eye, which rendered it more comfortable. On the second day two of the sutures were removed, and another introduced at the margin of the lid to prevent a commencing tendency to ectropium. On the third day the pain was not so acute, but he still complained of the dull, heavy pain in the right fronto-temporal region. The hemorrhage in the anterior chamber was not so marked. The iris was still dilated, and did not re-act to light. Vision, although somewhat improved, was still very imperfect. He could not recognize the hand as such ten inches in front of his pad, although he could see it move. On account of the hemorrhage an ophthalmoscopic examination could not be made. The cold compresses were continued, but the morphia was stopped. By the fifth day the blood in the anterior chamber was absorbed. The iris still remained dilated. Vision was considerably improved, large objects being recognized. The tension, which was at first slightly increased, appeared to be about normal as compared with the left eye.

The patient stated that the lateral fields of vision were better than the central. No ophthalmoscopic examination was made at the time. The sutures were removed, the flap being united in its proper position. The cold compresses were discontinued. On the seventh day the iris still remained dilated, but not to so great an extent, and acted slightly with a good

light. Patient stated that at a distance he could see almost as well as ever in the lateral fields of vision, but that in the central field there was a dark artificial stripe, and in that he could see nothing. An examination with the oblique illumination failed to reveal any defect in the cornea, neither could any pigment be discovered in the area of the pupil. The pigment from the iris might be displaced as a result of the blow, and if a narrow portion should be located on the anterior capsule it would produce an interruption of the field of vision. The lens appeared to be normal. An examination with the ophthalmoscope revealed a short, pale vertical line in the region of the yellow spot. Its edges were slightly irregular, and at two places there appeared to be two dark patches extending nearly across this line, and at another point a small reddish spot, which, no doubt, was hemorrhagic. There was nothing else abnormal noted by the examination. This pale ventrical line, no doubt, was a rupture of the choroid as a result of the blow, and occurred, as they usually do, in the region of the yellow spot. At this time there did not appear to be any contraction of the field of vision. This scotoma or interruption in the visual field corresponded to the vertical line in the choroid. As the dark stripe appeared to the patient to be narrower than at first, it is probable that the retina was not ruptured, and that this insensibility, produced by being detached from the choroid, and put upon the stretch, would be partially or completely regained when the wound in the choroid became united. As regards the sight, subsequently we know nothing, as we have not seen the patient since the examination that was made on the seventh day.

Art. 4.—Observations on some of the Physical Elements of the Human Constitution—with some Practical Remarks appended.

Read before the Bellefontaine Medical Society. By T. L. WRIGHT, M. D.

In speaking of the human body in health or in disease, the term *constitution* very frequently occurs. There is some vagueness, often, in the idea attached to the word. To a satisfactory appreciation of the subject, it is necessary to recognize, and as much as possible, analyze, those influences or impressions that fix, in an important way, the construction

of the human body. Such influences may be derived from sources exterior to the body, and beyond the immediate sphere of the earth itself. Of these, are light, heat, electricity, and magnetism.* Other influences having important relations with the human structure in health and disease, are found in external elements *not* beyond the earth, strictly speaking. Among such may be mentioned, moisture, dryness, malaria, contagion, certain telluric forces, and in addition, the modifying effects upon human existence of *location*, in a general sense; or, what is often known and defined by the term *habitat*.†

After disposing as best we may of the consideration of the above topics, we come to the question that is the special object of this writing, namely: What is the human constitution? How does it, in its various phases, effect the condition of the human being in a state of health, or in disease?

The term constitution, in the sense now employed, means "that form of being, or peculiar structure and connection of parts, which makes, or characterizes, a system or body."

The "system or body," of which we now discuss the "parts," is the human organization. What are its parts? And what effects do they have upon the physical appearance, the mental peculiarities, and moral attributes of the living being? In what ways, and through what channels, do these "parts" influence diseases and their remedies?

For the sake of brevity, I will state some well known facts, as a kind of text, in the language of Knox, in his lectures on the Races of Man.

"We discover structures in the embryo, not persistent but transitory, evanescent. We see that the individual is, in fact, passing through a series of metamorphosis, expressed briefly in the term development—passing through forms which represent the permanent forms belonging to the organic world; not human, but bestial; of whom some belong to the existing world, whilst others may represent forms which once existed but are now extinct." "The fully developed or grown up brute forms of birds and fishes, of reptiles and mammals, are represented in the organic structure of the human embryo."

In studying the physiognomy of man, a striking likeness to some of the lower animals is often perceived. One, will resemble the eagle, another, the fox, and yet others will have features like the dog, or the lion; and so on, through a great range of known animals. But the most remarkable fact in con-

* Lancet and Observer, Sept., 1876. pp. 834, 835, 836.

† Lancet and Observer, Sept., 1874. Art. 1.

nection with this statement is, that persons so possessing the features of the lower animals, actually betray some of the leading characteristics of the animals they resemble.

But it must not be supposed that the physical affinity between man and the lower animals is confined to the countenance. Other organs, internal, not seen, are often found affiliated to the brute creation. Such similarity, though not external, may often be surmised through the mental and instinctive characteristics displayed by the individual. It is no uncommon spectacle to see a person having the advantages of laborious precept and bright example, raised in a plane of life high above vulgarity or vice, sink to bestiality and crime. Some, like the boy murderer, Jesse Pomroy, or the child-killer in the church tower, in the manner of some hideous reptile, kill, without a sense of remorse, or a knowledge of pity.

These facts demonstrated that the metamorphosis of the human embryo, and development of the human being, do not entirely eliminate the forms and natures of bestial structure from the human constitution. They show also, that different bestial and reptilian forms and natures are eliminated in different degrees in different human beings,—some of the most terrible of such instinctive natures remaining in great excess and activity in certain persons.

The reverse of this is true sometimes: gently and beneficent natures springing from surroundings of a most truculent character.

To illustrate farther. In every inferior animal group, there is a steady, well defined character of aliment, or food, upon which that particular species of animal subsists. In the human animal a most astonishing range of food presents itself. Man is called, indeed, omnivorous. In any single person, the range of acceptable food may not seem very extraordinary. Yet, it will be perceived that what is disliked by one, will be relished by another; and what may be injurious to some, will prove healthful to others. One, lives by preference, chiefly upon meat, another is better satisfied with vegetables, that is plants; while still others feed, by preference, upon fruit or fowls; and occasionally one will be found, who really seems to be equal to all the possibilities of dietetic substances imaginable. It can scarcely be questioned, that the variable and opposite appetites for food in human beings, are associated with the complexity that characterized the physical constituents of their bodily frames.

Again, the effects of drugs upon the human being partake of that uncertain character, which would be expected from the

varied elements that form his constitution. Some species of the lower animals are poisoned by substances that are harmless or even beneficial to a different species. In like manner, in man, representing in varying degrees the entire range of animated nature, there will be seen in one, an idiosyncrasy, which will prove injurious upon the employment of some medicine, that is most commonly salutary in its effects. This idiosyncrasy exists in all degrees, respecting food or medicine, from a condition of absolute prohibition, to uncertainty, to indifference, up to appetite and healthfulness.

It is true, persons may form certain habits, as in the use of tobacco or alcohol. But they can not form a habit of using any drug or article of food with impunity, against which a true idiosyncrasy exists; as, for example, in some persons, opium. Persons, also, may form habits under the influence of education and religion, through which, by the habitual and watchful exercise of the better elements of their constitutions, the baser, and fiercer, and deadlier natures dominate, possibly, within them, may remain in a dormant or latent state. But such natures once present, can never be eradicated; and they are always liable, if congenial surroundings are offered to them, to assert themselves.

All these facts and observations point again for solution to the compound and complex nature of the human constitution.

The effects of morbid agents upon the structure of man, must, of necessity, resemble the effects of food and of medicine. That is, such agents will influence the advent of disease, in different degrees of violence, different phases and modifications, and will often exempt many persons from disease altogether. The same morbid causes in a structure so compounded as that of man, must produce a variety of symptoms. And in the same disease, the symptoms will be incessantly changing and assuming new features, and forming new combinations from day to day, and even from hour to hour. There are many important changes taking place in every case of serious illness, that are never exactly duplicated, although other cases may continually arise, caused by the same morbid agents, and called by the same name. And it holds good as a rule, subject to few exceptions, that the incessant changes and subtle complications, inseparable to serious disease in a structure so constituted as that of man, require in practice great watchfulness. Frequent changes in prescription are indispensable. It is a laborious fight up hill. And the physician should be fully prepared with a variety and great range of resources, to combat any disease in a rational manner.

Here it may be remarked that as some predominant traits, forming part of the elements of the constitution, may be held in abeyance, by an exercise of the moral and religious qualities of the mind, but can never be eradicated, so certain constitutional diseases may remain dormant for years, or generations, but they will assert themselves under favorable auspices, and they will prove, most frequently, unconquerable.

The facts stated above are not new, and the application of them is perfectly legitimate. Their relations to the phenomena of health and disease should be carefully analyzed. The more the attention is directed toward the evidences of the complex nature of the human constitution, the more plainly do those evidences declare themselves. Besides the similarities between man and the brute creation, in features, in internal structure, in disposition, and in the varying and contradictory effects, of pathological and physiological influences, upon the human condition; there are always to be seen, in any crowd of persons, the spectacle described by a distinguished writer as follows: "It will be found that some persons can not extend their arms or limbs to the degree of full extension; some have two or more fingers or toes webbed; some have no arms, so to speak, but mere hands; others no legs, but mere feet; or the thighs, are too short, or the arms; and in some the back is perfectly straight, instead of being arched or curved; in some the nails are round; in some, pointed like claws; on the finest necks of men or women may occasionally be seen some exceedingly small openings, marking the vestiges of branchial arches or gills. All, or nearly all the varieties here mentioned, are simply foetal, embryonic conditions, which ought to have been evanescent, had the law of perfect formation of species prevailed."

Add to the above the fact that the human constitution represents innumerable animal structures no longer existing, and whose remains lie hidden, perhaps, thousands of feet beneath the ocean's bed, locked in the stony embrace of the debris and wreck of the unnumbered ages of the past, then the magnitude and scope of medical observation will begin to be appreciated.

It is impossible to construct the facts pertaining to medicine into a perfect, symmetrical science. Some of the links in the chain of human characteristics are missing; and their nature can only be partly reflected by the incomprehensible and amazing eccentricities and contradictions, in the phenomena of human thought, and human action, and human disease. The science of medicine resembles the geometrical curve, the

hyperbola—a figure, whose ends are always approximating, but can never meet. Besides, man in his own nature is imperfect. He stops short of his own ideal. Every individual of the human race, how nearly soever he may approach toward perfection, has, in his constitution, some radical defect which affiliates him to the baser animated structures of the world. Like the palace of Aladdin, there is in every human being, even the noblest and best, an unfinished window. And our religion teaches us that the same architect who fashioned the structure can finish it, and none other. Thus the principles of religion and science, when rightly interpreted, illuminate each other, and harmonize into demonstrable truths.

The science of medicine is not, perhaps, so exact as some others by reason of its very magnitude; but it very greatly transcends all of them in the scope of its inquiries, and the majesty of its proportions. It is founded upon: 1st. The human constitution; 2d. The influences of the natural forces, with which that constitution is in immediate contact; 3d. The influences upon that constitution, of those tremendous vivifying powers, which emanate from celestial sources; and, finally, 4th. Therapeutical application of remedies to cure diseases, and regimen to preserve health. Upon these four pillars, and the immense superstructure of learning which they represent, is established, if not a science, at least a philosophy of medicine, under whose far-reaching principles may be grouped and classified all the essential facts pertaining to diseases and their remedies.

The first dawning of all the sciences was empirical. Medicine is no exception. The study of the application of remedies to diseases occupied the attention before the true nature of the causes and course of disease was known. The knowledge thus obtained is, much of it, the result of painful experiment, extending, some of it, through a period of thousands of years. It must be regarded as fixed, and not subject to be brushed away by any mere hypothesis.

The time has now come when mystery and superstition can no longer be tolerated, in considering the nature of disease or in explaining the action of remedies. The application of new facts and discoveries is fast removing the supernatural from the ideas concerning human diseases. The indications are, that the true relations between pathology and therapeutics will very soon be divested of any serious uncertainty; that, in fact, they will be satisfactorily established.

We have at least reached that point of knowledge respecting the forces of the physical world, that enables us to detect and

hurl down pretension and charlatanry. From what has been noticed of the multiform nature of the human constitution; from a consideration of the various and tremendous influences which cause disease; from the ever-varying action of such influences from time to time, changing the types of diseased actions, as well as the applicability of remedies; it stands demonstrated, that any hypothesis which pretends to embrace medical science in a sententious formula, is a childish illusion, or is a fraud. In the light of what has been already said, the subject will not bear serious discussion.

Similia similibus curanter is an hypothesis that has no more applicability to the relations that exist between diseases and their remedies, than it has to the explication of the reasons why the dew falls or the grass grows. Symptoms are not diseases, and the cause of disease, and the elements that constitute disease, are commonly of a nature that can be handled by omnipotent power only. They, and all things "similar" to them, are far beyond the reach of man. This hypothesis, however, is no worse than a multitude of other "systems" of medicine, which were supposed to be comprehensive and wise at a time when the characteristics of diseases were enveloped in doubt and mysticism.

But as much can not be said of the pretension of the followers of Hahnemann to cure with infinitesimal doses. It is an appeal to the superstitious element pervading the minds of an immense number of the human family. It is a return, a retrogression toward barbarism. It appeals to the same feeling of credulity and unreason that actuates the savage man-eaters of the Pacific Islands when they apply the lowest arts of sorcery to the cure of their sick. The basest, and most abject of the human race, resort to just as rational a means of medication, when they employ the powers of their fetiches, as that which characterizes the pretensions of the infinitesimal dogma. The outward mummeries, the conjuring tricks, the raising of smokes, the fantastic dancing and facial contortions, and medicated howlings of the Great Medicine Man, are, per force, dispensed with by the infinitesimal adepts. The spirit of the age, and the teaching of religion, frown upon and ridicule this part of the performance. The imagination of the patient may entertain itself with these fantastic ideas, but that is all that is permitted in that direction.

As for the vaunted cures of pure homeopathy,—for homeopathy not pure is something else, it is not homeopathy,—as for the cures effected by infinitesimal medication, any witch-doctor can show as many and just as well attested. The ut-

most that can be ever rightfully claimed, is a *post hoc*, instead of a *propter hoc*. The conjurers to bring rain, living in the kingdom of Dahomey, can claim as much.

But the success of homeopathy, so called, when it surreptitiously employs legitimate medicine, disguised to represent homeopathic medicine, is a different thing. It is sometimes real; but it might be passed with the contempt that deceit merits, were it not falsely imputed to the powers of infinitesimal doses. This "stealing the livery of heaven to serve the devil in," is no new trick; but in this instance, it is a trick both dishonest and mendacious. Compared with it the swindling jugglery of the Dutch rogue, Dousterswivel,* was honesty itself.

It is not surprising that the ignorant and credulous should find a nonsense congenial to their vacuity, in the pretensions of homeopathy. But it is not to be denied that men of high standing and of brilliant parts are votaries of that branch of the black art. This can only be explained, either by the difficulties that surround most minds in arriving at the true *rationale* of medical science; or, more commonly, by the absence of that harmonious blending of the characteristics that enter into the human constitution, that results in sound judgment. Bright in some specific direction as such men may be, they are not in possession of that crowning glory of humanity in its highest and best estate,—that faculty which lifts mortals far above all else of earth, and approximates them toward the Deity;—I mean that faculty or endowment called *common sense*.

Art. 5—Poisoning from the Bite of a Spider.

By FORDYCE GRINNELL, Physician to the Wichita Agency, Indian Territory.

Mrs. Williams, while eating fruit pie, unconsciously conveyed to her mouth a black spider, of the specially poisonous variety known as *Saltacus Familiaris*. Before discovering its presence she was bitten by it on the tongue. She says, that in-

* "The Antiquary."

stantly a painful sensation, as though arising from several points, darted along her tongue, painfully affecting her tongue, jaws and head. The effects were instantaneous, and were compared to a shock from an electric battery. The tongue seemed almost paralyzed, the utterance thick and heavy, and the pains at the root of the tongue and in the lower jaw, especially at its articulation with the temporal bones, were most excruciating and unbearable. I saw the patient a few minutes after the accident, when she was suffering as described. Spirits of ammonia was directed to be immediately applied to the part bitten (where a point about the size of a grain of corn was raised above the general surface of the tongue), and good brandy, with aromatic spirits of ammonia, was freely given. I had treated the same patient sometime previously, during an attack of cholera morbus, and during convalescence she made complaint that one teaspoonful of brandy affected her unpleasantly, indeed she seemed more than ordinarily susceptible to its influence. Now she took from one-half to one ounce at a time, and these doses at brief intervals, until she had taken about eight ounces of brandy, and near two drachms of aromatic spts. of ammonia, and yet she could perceive but slight effect from the use of the remedy. However, as she continued taking the brandy the pain decreased, until it was only slightly perceptible at the articulation of the jaw. When ten ounces of the brandy had been taken all pain ceased, and the patient walked to her room in comparative comfort. This, perhaps, an hour and a quarter after she had been bitten.

Little more effect was produced by the alcohol than a temporary quickening of the mental faculties, as exhibited in an unusual degree of loquacity. But no such symptoms were manifested as a like amount of alcohol would ordinarily produce. The patient experienced little further trouble, except an occasional return of slight pain in the jaw and tongue for the two succeeding days.

It might be here noted, that before I saw Mrs. W. a solution of sal soda, and some other local applications, had been tried without benefit; but she expressed marked momentary relief from the local application of the spirits of ammonia. Continued relief, however, was obtained only under liberal use of the brandy.

The poison of this variety of spider, like that of the tarantula and some of the serpent family, seems to act by producing a marked depression of the nervous system, and in turn a sluggish circulation, which would ere long result in stupor and death.

The indications would lead us to the use of such remedies as would counteract this effect, by keeping up the powers of the system until the violence of the symptoms had somewhat abated. Hence, the wonderful tolerance of the system for such remedies as at another time would produce very undesirable results.

*Art. 6—Modern Theories of Distinguished Authorities
on the Causes of Asthma and Mode of Treatment.*

A paper read before the Medical Association of Delaware County. By
F. W. MORRISON, M. D.

Etiology.

Two forms of asthma have been distinguished; 1st, a so-called essential or idiopathic, and 2d, a sympathetic asthma. The first is known by the circumstance that the patient is entirely well between the intervals of the attack, and that the most acute examination reveals no alteration of organs. In the symptomatic form there are different affections, as emphysema and chronic bronchial catarrh, which must be brought into close or remote casual connection with the asthma, and is characterized by the fact (Riegel) that here also the physical explorations of the respiratory, circulatory, and other organs in no wise reveals sufficient alteration to account for the severe symptoms which appear so suddenly.

Concerning the role played by the nervous element in the etiology of asthma, physical and sensual impressions may occasion attacks in a reflex manner; the nerves of smell frequently take up this reflex action, and under the influence of certain irritations transfer the excitement to the pulmonary fibers of the vagus, the effect being manifested in a bronchial spasm.

Thus, Itzigson relates a case in which a merchant got the asthma every time fresh coffee was piled up. A dyer got it whenever he used yellow oak; in another it was always produced by lampblack.

The asthma occasioned by ipecac has been repeatedly observed; the hay asthma of England is produced by the pollen of certain grasses, according to the investigations of Blackley. The fact may be of significance, says Salter, that men in

general suffer with asthma much more frequently than women. In 153 cases, 51 were females and 102 were males; the difference between the two classes is very remarkable. Thus of 23 patients between 20 and 30 years of age, 9 were males and 14 were females; of 19 patients between 50 and 60 years of age, 16 were males and 3 were females. During the period of life in which organic alterations of the lung are less frequent and in which the nervous system is more sensitive, the females preponderate over the males as 3 to 2; while at that period which presents organic diseases in increased proportion, the males preponderate over the females as 5 to 1; this same authority rejects the belief that asthma is a disease of age, in $\frac{1}{4}$ of his cases, the patients were under 10 years of age, and the age was below 40 in $\frac{1}{5}$ of his cases. It has been recently remarked by Voltolini, that nasal and naso-pharyngeal polyps not unfrequently give rise to bronchial asthma. Some of his reports are of especial interest, because the asthma not only disappeared with the removal of the polyps, but became re-established as the tumor grew again. Inheritance plays a part, though Lebert is disposed to consider hereditary influence as very slight. Frequent attacks of asthmatic paroxysms in children have been observed after measles and whooping-cough; further causes assigned are: catching cold, changes of temperature, damp dwellings, plethoric constitutions, and especially the night-time is to be mentioned as among one of the best known disposing causes; but according to Riegel the ultimate cause for the production of asthmatic paroxysms is unknown.

Theories on the nature of Asthma.—Concerning the nature of bronchial asthma I will refer to theories which are now more or less advocated, then are many old theories; says Riegel, "the enumeration of which is of no interest, have long been abandoned, and the dispute now is narrowed down to closer limits." The theory still mentioned and has the greatest number of adherents, says this learned author, "is that which places the nature of asthma and its ultimate causes in a spasm of the bronchial muscles. This theory, which is of the most ancient origin, and defended by numerous authors, as Trousseau, Salter, Romage, Lefever, Bergson, Terry, and others, has recently received important support in the experiments of Bert, who succeeded in producing distinct contractions of the bronchi by applying the galvanic current to the vagus, proving that the bronchial muscles can be excited to tonic contractions under the domain of this nerve." Wintrich claims that the principle of asthma lies in disorder of respiration, and has laid greater stress upon the *physical signs* than upon the negative results

of irritation of the vagus, especially upon the *depressed position of the diaphragm*, which he can not associate with a spasmodic contraction of the bronchi, for which reason both he and Bomberger believe that a *tonic spasm* of the diaphragm must be regarded as the cause of the asthmatic symptoms.

Bermier also recognizes this position of the diaphragm, but does not regard it as a result of tonic spasm, but due to an increased quantity of air contained in the lungs, a *dilatation* of the lungs, which is dependent upon a spasmodic constriction of the bronchi. He also believes that the bronchial muscles in the spasmodic condition may form a sphincter-like occlusion, which is more readily overcome in *inspiration* than *expiration*, and that the escape of air from the alveoli is impeded, and the inspiratory muscles become the antagonist of the bronchial muscles, and drives the air with force through the constricted bronchi into the air-cells. This air escapes but slowly, and is completely (Riegel), despite the assistance of all the expiratory powers, and this insufficient ventilation and abnormal distention of the lungs is followed by a sensation of want of air, and reflex straining of the respiratory forces. Lebert is of the opinion that the tonic spasm of the diaphragm is not the first act in the paroxysm, but that the spasm begins in the bronchial muscles in which it has its main factor, and there the inspiratory muscles of the throat and chest are first excited to great forced activity, approaching clonic spasm, and the diaphragm to more tonic, though not continuous contraction—that is, the bronchial spasm is primitive (by a disturbance of the vagus)—and the diaphragmatic spasm is consecutive by a reflex spasm over the phrenic nerves. This phenomena is associated with consecutive spasm of the individual muscles of expiration.

In 1871, Lyden first drew attention to the coincidence of a characteristic sputum which contains fine pointed crystals which irritate the peripheral terminations of the vagus nerve of the mucous membrane, with reflex spasm of the muscles of the smaller bronchi, and thus occasion all the symptoms of asthma.

Weber believes that in addition to the spasm of the bronchial muscles, various other causes, such as acute catarrh, diaphragmatic spasm and paralysis, insufficiency of the heart, aneurism of the aorta, and so on, may occasion asthmatic manifestations, and that the difference in the symptoms may be observed according to the difference in the cause. The most usual train of symptoms in asthmatic attacks, according to this author, is dyspnoea, whistling, sonorous and sibilent rales,

cyanosis, sweating frequently, great anxiety and restlessness, then moist rales, secretion of more or less viscid mucus, frequent expectoration of this secretion, and with it abatement and disappearance of the dyspnœa. This group of symptoms, and especially secretion of the mucous membrane, are not to be explained by a diaphragmatic spasm, or spasm of the bronchial muscles alone, but that a fluxionary hyperæmia plays an important role, caused by a tumefaction of the bronchial mucous membrane in consequence of dilatation of its blood vessels through vaso-motor nervous influence—such vascular dilatation producing a stenotic narrowing of the air passages.

Riegel observes that this theory “deserves our consideration, as it is in full accord with the well-known experiments of Lovin, that upon irritating sensitive nerves, a reflex vascular turgescence ensued in the domain of the irritated section, and in those cases of catarrhal asthma, which are occasioned by the odor of dried hay, fodder, rye pollen and the like. The odoriferous substances mentioned here excite a sympathetic disorder of the circulation in the form of a fluxion in addition to the perception of smell.”

Differential—Diagnosis by Respiration.—To Bermier and Gerhard belong chiefly the credit of having first accurately established the difference between *inspiratory* and *expiratory* dyspnœa. This difference has had further demonstration and verification through observations of Riegel and Woldenburg. The breathing in croup, says (Riegel), in œdema of the glottis, in stenosis of the trachea, in spasm of the glottis, and so on, in short, the breathing in any form of constriction of the larger air passages, will serve as an example of *inspiratory dyspnœa*, while emphysema, chronic bronchial catarrh, and bronchial asthma, represent examples of *expiratory dyspnœa*. In spasm of the glottis inspiration is prolonged, while expiration follows relatively, easily and promptly; while in asthma, expiration is prolonged, while inspiration follows relatively, easily and promptly, *i. e.*, the breathing is alike retarded in both instances, though in a reverse sense. In hysterical subjects inspiration is also relatively short, the thorax remaining in this inspiratory position for a short time, and the muscles in continuous tension, then expiration follows rapidly and forcibly, then begins again a new forced inspiration, and a retention of the thorax in this inspiratory position for a short time, then a short forced expiration again, and so on, *i. e.*, spasm of the diaphragm is observed with the greatest relative frequency in hysterical subjects. Inspiration in asthma shows

nothing that varies from an ordinary powerful and somewhat forced effort, but expiration presents the picture of a most laborious and tormenting, and at the same time, fruitless struggle. In spasm of the glottis there is prolonged laborious inspiration, while expiration is short, and relatively speaking, normal in its action (Riegel). In making up a diagnosis, an important differential indication is afforded in the sudden and apparently causeless onset of the paroxysm, and of the disproportion between the physical changes and severity of the dyspnoea.

Prognosis and Terminations.—The asthmatic paroxysm itself, no matter how alarming a character the symptoms may assume, is ordinarily without danger, yet bronchial asthma incloses a series of dangers, by long continuance, by leaving consecutive diseases behind it, which in their severer grades may eventually endanger life,—among these is emphysema; the pulmonary vesicles become developed, out of the acute pulmonary distention, and a loss of elasticity becomes associated with it; in short, true emphysema with all its consecutive manifestations, such as secondary hypertrophy, and dilatation of the right heart, secondary changes in the kidneys, dropsy, &c. According to Salter, recovery is rare after the forty-fifth year, as the disease is then continuously disposed to become worse, while, according to the same author, it is always curable in subjects below 20 years of age in the absence of organic diseases—and that it may be laid down as a rule, the hope of recovery is in inverse proportion to the duration of the disease.

Treatment.—As it regards the treatment of asthma, I approach the task with no little timidity and uncertainty respecting the success of the undertaking. Many remedies have been repeatedly recommended by this or that observer, and have proved serviceable in individual cases.

Trousseau remarks that, like all neuroses, asthma will often be relieved by remedies of extremely different nature, and experience will only reveal the proper one. The first indication is to shorten or remove the paroxysm, and fresh air will be foremost in demand. Benefit might be anticipated from opium, and practical experience has fully confirmed this view. Riegel observes, that it is necessary to give large doses of this remedy, if we wish the benefit to be prompt and certain. Chloral hydrate may claim that it deserves to be placed in the same rank with opium; others claim it has an incomplete effect. Pick states great success in the palliation influence of the *nitrile of amyl*. Chloroform and sulph. ether have been repeatedly employed with good results. Bromide of potash

in large doses is said to be competent to relieve the paroxysm. Strong coffee and frozen fruits are recommended, also inhalation of turpentine. An enumeration of all the remedies with which patients often help themselves is hardly possible. Trousseau relates a case, in which an asthmatic subject, whose attacks occurred at night, lit five or six lamps in his room and was always immediately relieved. The inhalation of certain fumes have had an extensive employment; of these *stramonium*, perhaps, has been most readily resorted to. Fumes of arsenic and saltpeter have been recommended,—fifteen grains of arsenite of potash is dissolved in one-half ounce of water, a piece of paper is saturated in this solution, then thoroughly dried and divided into twenty equal parts, then rolled into the shape of a cigarette; the patient after lighting one lets the smoke penetrate the bronchi, by means of a slow inspiration; not more than eight or ten inspirations need be taken, and these but once a day. Ammonia, emetics, and inhalation of oxygen have all been recommended. In aborting the attack, Riegel observes that ergotine deserves a trial, on the theory of congestion of the mucous membrane.

The second indication is to cure the asthma. It is of special importance to avoid, when possible, those sources of injury which the patient knows to have produced previous attacks, as the influence of dried hay, ipecac, &c. Of medicines, arsenic deserves the most prominent mention. Lebert recommends in obstinate cases the following: Murate of quinine, 60 grs.; arsenious acid, 1 gr.; atropia, $\frac{1}{2}$ gr.; ex. gentian, 60 grs. Make into 60 pills. First one pill daily, after a few days two daily, and the quantity is gradually increased to four pills in 24 hours or even to two pills three times a day. Quinine alone has been found serviceable in many cases. Riegel observes, that “oxide of zinc, nitrate of silver, and pills of carbonate of iron deserve mention. On the other hand scarcely any special benefit is to be anticipated from castor, camphor, assafœtida, valerian, and similar remedies recommended by individual authors. The following is praised by Roth and endorsed by Trousseau: Lactucarium, 9 grs.; iodid of pot., 77 grs; spir. chlo. ether, 18 minims; water, 5 fluid ounces; simple syrup, 1 oz.; one-sixth part at a dose. The constitution of the patient is to be taken into consideration; iron is to be recommended for chlorotic girls. The employment of rarefied air in expiration and condensed air in inspiration has proved, according to Waldenburg, a very effective remedy. This author has an apparatus by which inspiration of condensed air and expiration into rarefied air may be performed alter-

nately. This method is recommended especially in emphysema, but has been successfully used in pure idiopathic asthma. The quantity of condensed air, expired into the rarefied air, is greater than the vital capacity of the lungs, as measured by the *spirometer*; this excess is residual air, and by an alternation of deep inspirations and expirations an extensive ventilation of the lungs takes place, and they are in consequence retracted, on account of diminished space for this *residual air*, due to an exaltation of the respiratory forces, and the previous respiratory insufficiency is mitigated or overcome. Inspiration of compressed air is capable of converting the negative into a positive pressure, and the afflux of blood into the aortic system will be increased and its afflux from the veins into the right side of the heart will be diminished, *i. e.*, there will be an increase of blood in the systemic circulation and less blood in the lungs or pulmonic circulation (Waldenburg); on the other hand, expiration into rarefied air will cause the blood, by reason of decreased air pressure within the lungs, to be more favorably drawn to the right side of the heart, and the lungs will be more highly overcharged with blood. Now, in emphysema, with marked bronchial catarrh, we find the lungs hyperæmic, and therefore by making use of rarefied air, we should only still further increase the hyperæmia; in this case condensed air would be indicated, or the two combined.—(Ibid.)

Translations.

Diseases of the Skin.

Therapeutic Notes gathered at the Clinic for Cutaneous Diseases of Prof. Hardy, at the Hospital, St. Louis. By Dr. E. ORY, Intern of Hospital.

Treatment of Cutaneous Ulcerations.

Under the name of "*ulcer*" we understand a solution of continuity of the soft parts, with loss of substance, of longer or shorter duration, accompanied by a discharge of pus, and maintained either by a local vice or by some internal cause. The ulcer, always symptomatic, has a constant tendency to enlarge so long as the cause may persist.

The ulcerations of the skin, met with in the wards of the hospital St. Louis, may almost all be ascribed to four principal causes:

1. The scrofulous diathesis.
2. Syphilitic infection.
3. Disturbances of the circulation of a circumscribed region.
4. The epitheliomas.

These diverse ulcerations generally present themselves with characteristics sufficiently defined, so that they may be differentiated. Sometimes, however, says Prof. Hardy, there are cases in which, in the absence of all other distinguishing marks, the efficacy of a certain mode of treatment will indicate to the physician the nature of the ulceration. Besides, ulcerations of the skin may supervene in persons debilitated by poverty, by privations, from overwork, during convalescence from grave diseases. In these enfeebled persons, as with the scrofulous, the therapeutic indications are two-fold, and all local treatment will be useless, if not aided by proper constitutional treatment.

As a local application M. Hardy has frequently employed in his service a red ointment, the formula of which is as follows :

℞ Axungia,	5i	
Minium,*	}	aa grs. xv.
Cinnibar,		
M.—ft. ung.		

The ointment is spread on a piece of fenestrated linen, and the application renewed twice a day. This same composition may be fixed as a plaster, and gives the same satisfactory results.

In scrofulous persons we sometimes meet with ulcerations, most commonly on the neck, with loose flabby edges, with a violet discoloration of the surrounding skin; these ulcerations frequently supervene in the scrofulous in consequence of suppurated ganglions, or rather from subcutaneous abscesses. To prevent these disorders, M. Hardy employs the following treatment.

Against the glandular engorgements M. Hardy prescribes the repeated applications of the following ointment :

℞ Axungia,	5i	
Extract Conii,	5ss	
Camphor,	grs. xvss	
M.—ft. ung.		

* Minium = Plumbi oxydum rubrum (Dunglins. Med. Dict.)

But if the abscess is formed on the level of a ganglion, M. Hardy frequently traverses the purulent collection by means of a curved needle, armed with a thread. This thread is retained in place for a longer or shorter period; it performs the part of a small seton, permitting the regular discharge of the pus, and keeping up by its presence a salutary irritation.

The cutaneous ulcerations of the scrofulous, rebellious to treatment, and leaving, sometimes, very irregular and rather prominent cicatrices, have often, as point of departure, a phlegmonous affection, superficial subcutaneous abscesses.

Here the treatment proposed by M. Hardy is very simple. It is the opening of these collections by the caustic, the Vienna paste dissolved in alcohol. Take, for example, a subcutaneous purulent collection of the chin or neck; on the median and most elevated part of the cutaneous elevation a linear and very narrow application is made of the Vienna caustic, of the consistency of soft paste. This application, somewhat delicate to make, is, it must be avowed, painful; this pain, however, is not persistent; after ten minutes an eschar, rather blackish and liquid, has formed, and after the region has been carefully washed with camphorated alcohol, cataplasms of boiled starch are kept on it.

By this procedure a linear and hardly visible cicatrix is obtained, and we prevent the formation of scrofulous ulcerations with loose flabby edges and so rebellious, the treatment for which we will now indicate.

Prof. Hardy very frequently advises the application of the *Unguentum Canet*, an astringent discutient plaster, containing colcothar or red oxide of iron.

The topical emollients are sometimes useful in disembarassing the diseased parts of crusts which retard cicatrisation; on the other hand, lotions with infusion of the leaves of the walnut tree and aromatic wine are rarely necessary.

Good results are obtained by an energetic medication; here a formula:

R \bar{y} Aq. distill.,	℥i
Potass. Iodat.	grs. xlv
Iodine (pure),	grs. xv

A brush steeped in this liquid is passed lightly over the ulcerations.

The caustics: Vienna powder, potassa, chloride of zinc, Canquoin's paste, can be employed only with great reserve, and only in cases where the surface to be modified is but small in extent.

This substitutive medication is more easily practiced by means of the bin-iodide of mercury.

Here a formula of a preparation sometimes advised by Prof. Hardy:

Ry Axungia,	} equal parts.
Hydrarg. Biiodat.	

This pomade, having been slightly heated just before using, and the fat once liquified, a thin layer of it is spread over the diseased part by means of a brush. This application is painful, but determines a substitutive irritation, which is very efficacious.

There is, however, one point which can not be insisted upon too strongly, and that is that the local treatment is only an accessory one; the ulcerous manifestation of scrofula being dependent upon a bad state of the general system, it is the constitutional treatment which must be prescribed first, and systematically pursued.

Cod-liver oil is especially efficacious in the ulcerous form of scrofula. If, however, much of it must be administered, we must always fear that large doses will cause anorexia. The limit is variable, according to the individual and the season. In summer, for instance, cod-liver oil fatigues the stomach sooner, and the digestive functions are disturbed after the administration of but two or three tablespoonfuls. We must, therefore, begin with small doses, and increase them gradually; order the patient to take as much exercise as possible, to excite the appetite; indicate to them the use of bitter drinks, of hops, of gentian, and leaves of the walnut tree. The syrup of the iodide of iron, the preparations of iodine, the iodide of potassium, are very strongly advised by Prof. Hardy in cases of obstinate cutaneous ulcerations.

Lastly, the most scrupulous attention to a proper hygiene, the sojourn in the country, living on the sea-shore, then the use of mineral waters are useful adjuvants to a tonic treatment.

The *Chloro-sodinated* mineral waters, as *Salins* for example; the waters containing the calcareous sulphates, as *Louesche*; the sulphur waters of *Barege*, *Luchon*, *Ax*, *Aix* and *Enghien*, and lastly, a sojourn at the sea-side are the principal indications. Apropos of sea baths; it is well known that these baths can be taken warm in a bath-house (arranged for that purpose—*Translat.*) and will be indicated for patients who are too much enfeebled to stand a bath in the waves. Lastly, we would call attention to the fact that with a small quantity of water a sea bath can be given, without the patient's quitting Paris, by means of the *Hydrofere*.

Syphilitic ulcerations of the skin are equally susceptible of general and local treatment.

The local treatment, by far the least important, may consist of the application of the red ointment, the formula for which has already been given above; several times I have seen Prof. Hardy prescribe the topical application of iodoform to the wound. This treatment is, however, expensive and above all very inconvenient, on account of the penetrating and persistent odor of this article. Sometimes, in the hospital, Prof. Hardy has had the syphilitic ulcerations covered with *emplastrum de vigo*. It is useless and even hurtful to provoke the removal of the crusts which cover ulcerations of this nature. Cicatrization proceeds much faster under them, even without any local treatment, if the patient be put upon the proper constitutional treatment. The ulcerations may appear in the course of syphilis, outside of the initial chancre, either as precocious manifestations (*syphilides malignes prococes*) or as tertiary accidents. We recognize almost always that these ulcerous manifestations of the skin arise under the influence of a vitiated general condition, from alcohol, from improper diet, from fatigue, from exhaustion, etc.

Therefore the most careful hygiene, with a proper tonic regimen, should be recommended to syphilitics; then the wine of quinquina and gentian, iron, the bitter infusions, substantial alimentation, moderate exercise and the removal of everything that may tend to induce over-exhaustion, too great preoccupation, or violent emotions. Lastly hydrotherapie. But this is not all. As soon as the cachectic constitution of the syphilitic has been sufficiently invigorated, either by regimen or the use of sulphur waters—Barege, Luchon, Uriage, Ax, Schinznach, Aix, Enghien—a mercurial or iodine treatment should be prescribed.

Prof. Hardy sometimes orders a syrup, called the syrup of Gibert, containing iodide of potassium and the proto-iodide of mercury; at other times he finds it better to administer these remedies separately; he then orders one or two pills of Sedillot for the evening and from one to four grammes (at the most) of iodide of potassium to be taken in the morning in solution.

I shall say but little of the treatment of *Varicose ulcer*. In fact, almost all cases of this variety entering the hospital, kept up and irritated by default of proper care and by overwork, heal very quickly after several days of rest absolutely maintained, aided by strict cleanliness and the application of a pomade of minium and ciunabar. But these cures are of short duration as soon as the patient resumes the usual course of

his exhausting labors. Nevertheless, in no form of the disease is the beneficial influence of immobility and horizontal position so apparent as in the variety called varicose ulcer. The treatment by bandages and strapping with dyachilon plaster is sometimes not permissible, on account of the eczematous eruption which its contact with the surrounding skin may excite. The powder of iodoform is useful if the ulcer present a fungus aspect. Dressings of aromatic wine, stimulating lotions, excite the development of healthy granulations and now, grafts of skin, well made hasten cicatrization.

The *Cancroid*, formerly designated under the name of *noli me tangere*, is nevertheless susceptible of treatment; more especially at an early period. In fact, Prof. Hardy, when a case of circumscribed cancrroid, with well defined boundaries and not resting upon an indurated and profound base, presents, advises the removal of the disease by the Vienna caustic. He allows the caustic to act on the part for about ten minutes (the times varies according to the depth); the eschar that is formed must be let alone, and generally after its spontaneous falling off, a wound, benignant in character, is found, which heals rapidly.

But this treatment is far from being applicable in every case, on account of the depth and extent of the ulceration. I have seen Prof. Hardy employ, and that with certain success, applications of chlorate of potass in solution. Moreover, it is well known that ehlorate of potass internally administered has been found beneficial in the treatment of cancrroids.

It is not my province here to speak of the surgical treatment, by the knife, of cancrroids, the only one sometimes applicable, and which gives the better results the larger the intervention and the earlier it has been practiced.—(*Progr. Medicale.*)

Laxative and Antibilious Pills.

R ^y Extr. Colocynth Co.,	grs. lxxvii.
Scammony,	grs. xix.
Extr. Rhei.,	grs. xi.
Saponis Alb.,	grs. ivss.
Essent. Canell,	gtta. iv.
M.—ft. mass & divid. in pillul,	No. 24.

Sig.—One to two pills to be taken morning and evening—to provoke bilious stools and augment the appetite—in gastric embarrassment.—(*Progr. Medic.*)

Potion against the Symptom of Oppression in the Nervous or Inflammatory Affections of the Respiratory Tract.

R_y Infusion of Polygala, ℥iii.
 Nitrate of Potass, ʒi. grs. xv.
 Syr. Belladonna, ʒi.
 Tinct. Lobelia, grs. xxx.
M.

Sig.—A tablespoonful every hour, and when the oppression ceases a tablespoonful every two hours. This potion may be employed in affections of the right side of the heart, for the purpose of lessening the oppression.—(*Progres Medicale.*)

The Treatment of Spina-Bifida.

Discussion at the Chirurgical Society. (Paris.)

At the last session of the Chirurgical Society on the 3d of May last, M. Perier read a report on two cases of hydrorachis treated by the ligature, the histories of which were sent to the society by Dr. Mouchet, of Sens.

The first observation is that of a child which came into the world with a spina-bifida, commencing a little below the middle of the rachis, and so voluminous that the summit of the tumor reached almost the popliteal space. The skin covering the meningeal sac was very much distended and very thin; by depressing the skin it was thus very easy to recognize that the subjacent rachidian fissure was of rather considerable dimensions.

M. Mouchet made a capillary puncture on the first day of the child's birth, emptied the pouch, and was thus enabled to discover the disposition of the hard structures and the composition of the soft tissues that constituted the spina-bifida. He also established that in the center of the extra-medullary tissues there was a hard nodule, which could not be the spine, but which presented the appearance of a nervous fascicle.

No accident having followed the first puncture, a second one was made the next day; then the base of the tumor was strangulated by a ring of caoutchouc fitting rather tight. The object of M. Mouchet was to cause the rachidian pouch to fall off by the elastic ligature.

On the third day a portion of the tumor was already sphacelated. On the fourth day the volume of the tissues having been considerably diminished by the constriction, the caout-

chouc ring slid off and had to be replaced by four points of elastic suture. On the seventh day the union of the parts brought together was complete. On the seventeenth day the wound was completely cicatrized. On the site of the tumor there could be felt a depression in the vertebral column. The cicatricial tissue covering it did not dilate, however, and the infant was radically cured.

The second operation, unfortunately, did not have so brilliant a result as the first. It was made upon a new-born infant, having in the lumbar region a spina-bifida, forming a tumor about ten centimeters long and six centimeters in width. In this case the ligature was applied without previous puncture, beneath needles thrust into the base of the tumor. These needles were destined to pedicularize the tumor and thus afford firm support to the elastic thread.

At first, things progressed in rather regular way; the wound did not inflame, and the medullary functions were in no way disturbed. Suddenly, grave intestinal troubles arose, and carried off the little patient eight days after the operation.

Apropos of these two observations of Dr. Mouchet, the reporter (M. Perier) remarked that the treatment of hydrorachis by the elastic suture had been already tried before. Thus M. Nicaise had reported to the society on an analogous observation of Dr. Loyenne. Mr. Hutchinson had cured a spina-bifida by the same procedure, and cited a case cured in fifteen days after an operation made by another surgeon. Boll operated on an infant, aged six months, but it died suddenly on the fourteenth day, amid repeated convulsions.

The number of cases collected by M. Perier does not reach above the modest figure of six; of these, three were successful, one unsuccessful, two deaths. It is rather difficult, therefore, with a statistic bearing on so small a number of cases to formulate an opinion as to the curative value of this procedure; nevertheless the successful results obtained are sufficient to warrant its employment in certain particular cases.

Radical cure of hydrorachis may be obtained by other procedures than the elastic ligature. In the hands of Mr. Morton, for example, injections of iodine have given very good results, since out of ten cases so treated, seven were completely successful, and of the three cases that died, one was due to a continued and incoercible flow of cephalo-rachidian liquid, and the two others can be placed to account of the deplorable general conditions in which these two patients found themselves. The English author attributes his success to the special composition of the injecting liquid he employs. This is his formula:

Iodine,	2 parts.
Iodide of Potassium,	6 parts.
Pure Glycerine,	100 parts.

The solution of the iodine in glycerine should have, from the particular point of view of the treatment of hydrorachis, considerable superiority over the solution of iodine in alcohol or simple water. The mixture (of the above formula) thus resulting, acts locally, does not diffuse itself in the rachidian canal, and provokes the retraction of the pouch without inflaming the spinal meninges.

M. Perier thinks that it would be in place that this procedure, which, at first sight seems so preferable to the elastic ligature, should be tried in France.

M. Blot is of the opinion that it is inopportune to act on the spina-bifida immediately after birth. It is always best to wait a few days, and see how the tumor comports itself; for it often happens that it gradually diminishes in size, and ends by disappearing spontaneously. That is what the speaker recently observed in a little girl, in whom the spina-bifida has become to a great extent effaced without any treatment having been employed for it. Expectation is therefore preferable to an operation, which must by no means be resorted to immediately after birth.

It is also necessary to make a distinction in the cases we meet with; for example, the spina-bifida of the lumbar region require other therapeutics than those having their seat in the cervical region.

M. Pollaillon is of the opinion of M. Blot. We must always wait before attempting a radical operation. When the envelopes of the pouch are formed by the skin and the dura mater, expectation is an absolute necessity; for examples exist where the envelopes have thickened, the parietes developed into dense membranes, and a cure thus brought about.

The question of an operation should not be put, except where the tumor is badly located, or where, instead of diminishing or even remaining stationary, it increases in volume.

If an operation is determined on, we have the choice between the iodized injections and the elastic ligature. Also on this point a distinction must be made. When the tumor is easily reducible, and when its cavity communicates freely with the rachidian cavity, injections, even of iodo-glycerine, should be rejected; on the other hand, the injections may prove successful when the tumor has only a minimum connection with the rachidian canal.

The speaker himself prefers the ligature to injection. There need be no fear of nervous accidents from strangulation of the tumor; especially, if it be seated in the lower regions of the rachis, for in the majority of cases the nerves that traverse the thickness of the cystic parietes are of little importance in number and general use. They can be ligatured without inconvenience.

M. Larrey confirms *M. Blot*, and cited the case of a nurse in the Hospital Cochin, who still, at 26 years, carries a voluminous lumbar spina-bifida without its inconveniencing him in the least.

M. Gueniot thinks the most difficult problem to be solved, when we have a case of spina-bifida, is, to establish, whether or no there is any communication between the external pouch and the rachidian cavity; if such communication exists, there is no place for an operation, especially not by injections of iodine. Even the simple puncture of a hydrorachis may have grave consequences.

The question of the nerves contained in the tumor is of greater importance than *M. Pollaillon* would have us believe. It is true that sometimes the nervous filaments traversing the internal face of the tumor are not very numerous, nor of great importance. Sometimes, however, the whole spinal marrow is dissociated in the rachidian cavity, and it can easily be conceived that a destructive operation practiced under such circumstances stands a good chance of bringing about an unfortunate result. *Giraldés* has well discussed this point of pathological anatomy and therapeutics.

In certain cases, therefore, we should refuse to operate, and content ourselves with some protective apparatus (as a cap of gutta percha).

M. Houel expressed himself similarly as the foregoing speaker, of the impossibility of knowing in the living person what nerves may be contained in the interior of the tumor; whether the entire medulla is dissociated in it, or whether it contains but one or two filaments of no importance.

M. Pollaillon would add that there exists, perhaps, a means of arriving at a knowledge of the state of the nervous system in the spina-bifida. *Braun*, of Vienna, has demonstrated, that generally where the spinal medulla is dissociated in the pouch, there are concomitant vices of conformation situated in the lower extremities. We would therefore be authorized to admit that a spina-bifida did not contain the medulla, if the infant did not show any other congenital vice of conformation.—[*Tribune Medicale*, No. 406.]

Proceedings of Societies.

MEETING OF THE INTERNATIONAL MEDICAL CONGRESS.

MONDAY'S PROCEEDINGS.

At twelve o'clock on Monday, September 4th, the International Medical Congress was called to order by Prof. S. D. Gross, President of the Centennial Medical Commission, in the hall of the University of Pennsylvania. There were, at a rough estimation, four hundred and fifty gentlemen in the audience. The Right Reverend Bishop Stevens, of Pennsylvania, opened the exercises with prayer, after which Professor Gross delivered an eloquent address of welcome, which we regret we can not give at length. We give merely an extract, in which he dwells with natural pride on the progress of the country as exemplified by such an occasion.

"In its wide range, the present congress is without a parallel. Similar bodies have repeatedly met, but none on so grand a scale or with such a cosmopolitan outlook.

"In organizing the congress the commission may have been guilty of undue partiality toward their own country. Perhaps such a tendency was, after all, only natural. However this may be, certain members felt an irresistible desire to show the world what the century since the establishment of our independence as a free and sovereign people has accomplished for scientific medicine. For this purpose, topics illustrative of the progress and present condition of the different branches of medicine in the United States have been assigned to gentlemen of acknowledged rank in the profession in different sections of the Union. These exercises will, it is believed, add greatly to the interest of the occasion. Time was when we had no medical literature, no medical science; when we were utterly helpless, and wholly dependent upon the aid derived from our European brethren, especially the English, whose language, practice, and habits we made our own. The poverty of the country in these respects can not be better illustrated than by the fact that we had no native works on medicine and the collateral sciences until after the commencement of the present century. Many of you will recall the words of the great English lexicographer, who, in 1769, in speaking of the American colonies, exclaimed, 'Sir, they are a race of convicts, and ought to be thankful for anything we allow them short of hanging.' The Abbe Raynal, writing in the latter part of the last century, declared that America had not yet produced a single man of genius; and the exclamation of a celebrated Scotch reviewer, uttered at a more recent period, 'Who reads an American book, who goes to an American

play, or who looks at an American picture?' is still fresh in the memory of many of the present race of men. The discourses which will be delivered before you on the progress of American medicine will serve to show that the profession in the United States has earned for itself an enviable reputation, and that it is fully abreast with all the other pursuits that adorn the human mind and shed luster upon the scientific character of the nation. They will serve to show that we have passed the period of medical provincialism, and that we stand upon a lofty platform, to which we need not be ashamed to invite the representative men of the profession of foreign countries, however illustrious, or however far advanced in the arts of civilization."

Following the address of Dr. Gross, the names of a committee of thirteen, who had been nominated by a committee appointed by the commission, were submitted to the congress for acceptance. The duties of this committee were the nomination of the officers of the congress. Nine of them were Americans, four were Europeans. Their appointment was confirmed by unanimous vote of the congress. Dr. Austin Flint, of New York, was then introduced as reader of the address on medicine. This interesting address, of which we give an abstract elsewhere, was listened to with great attention, and, at the close, Dr. Gross made reference to the modesty which led Dr. Flint to omit all mention of his own celebrated writings. The address was then referred to the Committee on Publication.

The thanks of the congress were tendered Dr. Gross for his address, and a copy of it was asked for publication.

The Committee on Nominations next reported their choice of the following gentlemen as officers of the congress:

President—Dr. S. D. Gross, Philadelphia.

Vice-Presidents—Dr. Paul F. Eve, Tennessee; Dr. Joliffe Tuffnell, Dublin, Dr. W. L. Atlee, Philadelphia; Dr. C. Lasige, Copenhagen; Dr. J. B. Johnson, St. Louis; Dr. F. Seneleden, Vienna; Dr. Hunter McGuire, Virginia; Dr. Johan Hjort, Christiana; Dr. S. G. Richardson, New Orleans; Dr. Wm. H. Kingston, Montreal; Dr. J. P. White, New York; Dr. H. Mujake, Japan; Prof. N. R. Smith, Baltimore; Prof. Rudnen, St. Petersburg; Dr. J. M. Toner, Washington, D. C.; Prof. Hueter, Griefswald; Dr. G. L. Collins, Rhode Island; Dr. R. F. Hudson, Australia; Dr. H. Gibbons, California; Dr. P. De Basieux, Belgium; Dr. N. S. Davis, Chicago; William Adams, Esq., London, Eng.; Dr. L. A. Dugas, Georgia; Prof. Simpson, Edinburgh; Dr. J. K. Bartlett, Wisconsin.

Honorary Vice-Presidents—Surgeon-General Barnes, U. S. A., Surgeon-General Beale, U. S. N.

Secretary-General—Dr. I. Minis Hayes.

Assistant Secretaries—Dr. Wm. B. Atkinson, Dr. R. J. Dunglison, Dr. R. A. Cleaman, Dr. W. W. Keen, Dr. Bertolet.

Section of Medicine—Chairman, Prof. A. Stille; Secretary, Dr. J. Ewing Mears.

Biology—Chairman, Prof. J. C. Dalton ; Secretary, Dr. J. Tyson.

Surgery—Chairman, Prof. Joseph Lister ; Secretary, Dr. J. H. Packard.

Dermatology and Syphilology—Chairman, Dr. J. C. White ; Secretary, Dr. A. Van Harlingen.

Obstetrics—Chairman, Prof. Barnes, of England ; Secretary, Dr. Wm. Goodell.

Ophthalmology—Chairman, Dr. R. Brudenell Carter ; Secretary, Dr. J. Green.

Otology—Chairman, Dr. L. Turnbull ; Secretary, Dr. C. H. Burnett.

Sanitary Science—Chairman, Dr. Stephen Smith ; Secretary, Dr. E. M. Hunt.

Mental Diseases—Chairman, Dr. J. P. Gray ; Secretary, Dr. W. Kempster.

Dr. Gross, on taking his seat, thanked the congress for the honor conferred on him, and said that nothing would be dearer to him during the remainder of his life than to have presided over their deliberations. He considered it was an honor not solely bestowed on him, but as a tribute to the profession of Philadelphia, who had been so instrumental in organizing this congress. To preside over such a body is an honor of no ordinary kind.

The meeting then adjourned to meet at ten o'clock on Tuesday.

TUESDAY'S PROCEEDINGS.

The International Medical Congress reassembled at ten o'clock Tuesday morning, in the chapel of the University of Pennsylvania, West Philadelphia ; Dr. S. D. Gross, President, in the chair.

Dr. I. Minis Hays announced that up to three o'clock, Monday, the names of about three hundred delegates were registered.

Next in order came the reports from sections, which were read.

Dr. T. G. Richardson, of New Orleans, moved that the congress be not held responsible for the reports of the sections, and Dr. Nathan S. Davis, of Chicago, moved that the reports be merely accepted and referred for publication. Both motions were agreed to.

Congratulatory letters from foreign societies were then read, after which were read invitations to delegates to visit the university buildings, the new hospital of Jefferson College, the College of Physicians, and the Academy of Natural Sciences. It was then announced that Room 4, in Judges' Hall, Centennial grounds, had been reserved for the use of the delegates.

Dr. Austin Flint, of New York, offered a preamble and the following resolutions, which were adopted :

Resolved, First. That the members of this International Medical Congress regard with great interest the contribution of a national medical library in the city of Washington, and respectfully petition the Congress of the United States to provide for additions to

the number of volumes and periodical publications until the library is made as complete as possible.

Second. That in view of the necessity of what is known as a *Catalogue raisonne*, in order to render the library properly available for reference, this International Medical Congress urge the importance of an early completion and publication of such a catalogue.

Third. That the specimen fasciculus of the catalogue, which is stated to be nearly ready for the press, affords evidence of great labor and care, and the arrangements for convenience of reference, it is believed, will prove in all respects satisfactory.

Fourth. That those of the delegates to this International Medical Congress, who are citizens of the United States, and other members of the medical profession in this country, are urged individually to exert their influence to secure the enlargement of the library and the speedy publication of the catalogue.

The Committee on Nominations presented the following additional report, which was adopted:

Committee on Publication (with power to choose its chairman and an editor)—Dr. J. Ashhurst, jr., Dr. R. J. Dunglison, Dr. Wm. Goodell, Dr. J. H. Hutchison, Dr. Caspar Wistar.

Treasurer—Dr. Caspar Wistar.

Vice-Presidents of the Sections—Medicine, Dr. R. P. Howard, Canada; Dr. J. J. Woodward, U. S. A.

Biology—Dr. A. Flint, jr., New York; Dr. F. W. Campbell, Canada.

Surgery—Dr. J. A. Grant, Canada; Dr. J. Ashhurst, jr., Philadelphia.

Dermatology and Syphilology—Dr. S. Englested, Copenhagen; Dr. E. Shippen, U. S. N.

Obstetrics—Dr. A. Simpson, Edinburgh; Dr. W. H. Byford, Illinois.

Ophthalmology—Dr. Wm. Thomson, Philadelphia; Dr. W. H. Williams, Texas.

Otology—Dr. A. Buck, New York; Dr. C. J. Blake, Boston.

Sanitary Science—Dr. J. S. Billings, U. S. A.; Dr. H. B. Baker, Michigan.

Mental Diseases—Dr. J. Ray, Philadelphia; Dr. E. Grissom, New Orleans.

Dr. Bowditch delivered an address on hygiene.

The sections met at three P. M. In the Section on Surgery, Prof. John F. Hodgen, of St. Louis, read a paper on Antiseptic Surgery. He defined septicæmia, and referred to the views of Rindfleisch, Tyndall, and Pasteur. Tyndall concludes that bacteria are irregularly diffused through the air; hence the difference in hospital experience in various sections. In some there is more septicæmia, in others less. In septicæmia the blood contains elements of putrefaction, and the purulent or putrescent elements are derived from fluids. Absorption, as asserted by Billroth, takes place more readily in the early stages of inflammation and in recent

wounds. Diseased skin and wounded surfaces take up these matters readily, yet the latter do not pass through healthy granulations. This has been proved by experiment. Putrid pus is found in abscesses in many parts of the body. A destructive inflammation may originate in these collections, the surrounding walls of the cavities may melt away, and septicæmia, following a large flow of putrid pus, is probably due to fresh inflammation in the walls of the abscess or cavity. Debility, fatigue, and the like, induce these changes.

Animals fed on sulphites are not so liable to septicæmia as animals otherwise fed. Any substance that arrests putrefaction is antiseptic. Cotton as dressing is not reliable, because we can not be sure that it is free from bacteria. Heating the wool or diffusing gases through it (Lister's method) may free it from germs. Charcoal, clay, chalk, Peruvian bark, and pulverized madder-root are all useful, but not absolutely sure. Caustics destroy the living organisms upon which putrefaction depends. Currents of dry air, by desiccating the fluid from wounds, prevent absorption of putrefying matter. Practice is infinite in variety. One practices isolation; another, ventilation; another watches over the wound; another seals the absorbing surface. One leaves wounds open; another washes and scrubs; another plasters and daubs. All this shows, at any rate, the necessity of great care in protecting wounds. We see, too, the hopelessness of preventing the entrance of bacteria by plasters, powders, or fluids. If we can keep septic matters within bounds, we prevent septicæmia. We see this in washing out wounds or inflamed uteri.

The antiseptic ligature can not be ignored. It becomes absorbed and organized. Lister says that we really surround vessels with living animal tissue. Epithelial cells, as is well known, after removal from their place of origin, can proliferate. Why, then, can not animal ligatures revive and become organized when around vessels?

Dr. Paul F. Eve uses the tendons of the deer. They become absorbed.

The entrance of septic germs may be prevented, but only for a time. Actual prevention requires such exact care as will be seldom seen. Practically the conditions to be met are so difficult as to make us nearly powerless. Germs having been found under dressings so ingenious as those of Lister, it shows how nearly impossible it is to prevent their contact with wounds.

Professional experience teaches us that, as Billroth asserts, absorption by granulating surfaces does not take place rapidly enough to cause septicæmia. It takes place *before* granulation begins.

Drainage tubes, water baths, and other rapid means of cleansing wounds will prevent absorption.

The paper being concluded, Dr. Hewson, of Philadelphia, related his experience with various dressings, finally adverting to the earth treatment, with which he has been very successful. He thinks

water dressings and douchings convey germs, and agrees with an English author who says that all fluids as dressings are bad for this reason. For ten years he has not used ligatures, but acupressure and torsion, and thus one source of putrescence is avoided. Dr. Hewson now removes dressings as infrequently as possible, covering wounds with blue paper, which, he thinks, excludes rays of light. During the past few months he has used salicylic acid, but has not allowed wounds to be washed nor dressing to be disturbed when not soaked by the discharges. At present he finds nothing so satisfactory as salicylic acid. He finds, too, that it relieves pain.

The great event of the day was the discourse by Prof. Lister in the discussion that followed this paper. He spoke for three hours, during which he received the most unwavering attention. He first referred to the great trouble which attends a perfect use of the antiseptic method. He acknowledged the wearying care attendant upon its use, but expressed his honest belief that there did not exist a medical man who would not be faithful in carrying out any form of treatment which promised to help a patient. He described an operation by which he recently cut out large wedgeshaped pieces from the two femurs of a cripple in order to straighten his limbs. To do this without strict antiseptic treatment would make success impossible.

Referring to wounds on the head, he said that to remove dressings after days in which they were left untouched, and to find no pus, but fresh cicatrices, was a new era in surgery. This can not be done without antiseptic treatment. To open the spine, remove carious bone, and restore the patient to health can not be done without strict antiseptic treatment. To open an acute abscess, press out the last drop of pus and see no more form, can only be accomplished by the antiseptic method. Unless we use this method we can not safely tie large arteries without deep-seated suppuration. "Indeed," said he, "I should be exceedingly sorry to apply any ligature without strict antiseptic treatment. We need have no hesitation in expressing the belief that, although we may have good healing without antiseptic treatment, we can not thus secure the best results. Antiseptic surgery is dealing with surgical cases in such manner as to prevent putrefaction. When I read Pasteur's original paper, I said to myself, 'Just as we may destroy lice in the head of a child who has pediculi, by poisonous applications which will not injure the scalp, so, I believe, we can use poisons on wounds to destroy bacteria without injuring the soft tissues of the patient.' Putrefaction may be caused by an individual himself, because of his feeble condition. In simple fractures, even, we have a serious wound. If we could only see it we should say, 'Here is dead tissue. It must be poulticed to help its removal.' I say, in simple fractures are injuries of all degrees.

"If injury follows the opening of an abscess, it is not due to the admission of matter from without, but to the effect upon the pyo-

genic membrane, which gives it power to absorb, as it did not when intact. So says Billroth. But we did not need to have Billroth tell us that granulations do not absorb, and that putrescent absorption occurs before granulation. I said this in works of nine years ago. We all know how, when water dressings are removed from granulating surfaces, the whole ward will stink, and yet the granulations do not absorb. We knew this long before Billroth wrote. The cause of the mischief in the free opening of abscesses without the antiseptic treatment is that the pyogenic membrane is not in a condition of granulation. But in acute abscesses we have a granulating surface, just as we have in recent wounds. It is not so in chronic abscesses. Many abscesses do not form pus at all until they are opened. They are not then in a condition of granulation, but in consequence of their chronicity they can absorb. Granulations covered by epithelium develop in proportion to the amount of epithelium. In pyogenic membranes the surface will absorb in proportion as it resembles a sore with the granulations stripped off. I have seen a patient die within twenty-four hours, and before the membrane had had time to granulate, by absorption of putrescent matter, and although the fluid discharge was clear and not yet pus, it stunk."

Professor Lister then showed his common and most reliable dressing. He uses carbolic acid, but insists that it be perfectly pure. That which makes carbolic acid unpleasant to the smell is cresyllic acid. "If a solution of acid and water be not clear, the cloud is caused by insoluble carbolic acid, and this portion will irritate the hands if rubbed upon them. But a perfectly pure solution will not do this. Carbolic acid has the property of penetrating through many, even oily, substances, and will cleanse more perfectly than anything else I know." Lister likes salicylic acid, but prefers carbolic, because more volatile, and hence more searching. He then showed his ingenious spray-producer, which is so arranged that the spray can be directed at any angle upon a wound without the need of an assistant. He begins his dressing by first requesting his patient to cleanse the injured part by washing. He used to excise the carpus. Now he does not like the operation. In case of injury in which there is great mobility of the wrist, he makes two or more free incisions into the joint, keeps the wound open, and uses a drainage tube, with good results. The finger-nails should always be cleaned before the hand or finger is introduced into the body. Nothing of this sort should be neglected. Be sure not to introduce anything into the wound not cleansed by the carbolic acid lotion of one part of acid to twenty of water.

Lister uses a coarse netting, dressed with a mixture of carbolic acid, one part to resin five parts. He first lays upon the wound a piece of oil silk well varnished with copal varnish and wet in the carbolic-acid lotion. He does not use this in opening abscesses, because he does not wish them to heal. If the gauze went first upon the wound, it would irritate and cause a flow of pus, but if

the oil silk be first laid on, we may leave the dressing for a week. The trouble is great, but it pays. If, during an operation, an instrument be laid on the table, it should not be again used until it has been dipped into the carbolic-acid lotion. Those who use the method do this instinctively. The gauze is next laid on, first being dipped into the carbolic-acid lotion. The remainder of the dressing, already prepared of layers of calico, oil silk, and wadding, must not be laid on without first protecting it by gauze dipped into the lotion, because, having been lying upon the table, it may be covered with germs. All this is done under a cloud of spray, and when the dressing is changed it must be done under the spray, and one must see that this plays between the dressing and the skin of the patient. The whole is bound on by a roller of silk gauze moistened in the solution.

Lister then at great length explained his own experiments and those of others with milk, water, urine, and other fluids, variously protected from bacteria by covers, or by boiling, and he showed how germs may find entrance into fluids, and how these fluids may be protected from them. In regard to bacteria found in freshly voided urine, he said he believed that a healthy mucous membrane in the urethra prevents the development of bacteria. In lesions of the membrane, if it be washed by a solution of water and carbolic acid, and the penis be washed in the solution and a cap soaked in the solution be put on, the urine will not change in any respect. He then described his catgut ligature and his method of preparing it. He at first tried chromic acid, but that substance made the ligature too hard. He then tried glycerine, chromic acid, and water; next, chromic acid and carbolic acid; now he uses chromic acid, glycerine, water, and spirits of wine.

Professor Gross then said that for years he has prevented irritative fever in patients who had chronic abscesses, without the antiseptic method, by putting them at once under the influence of anodynes and keeping them thus for several days.

In reply to a question as to the use of the antiseptic treatment on abdominal lesions, Lister mentioned a case in which the bowel protruded and lay outside of the cavity for half an hour, covered with a cloth dipped in the carbolic-acid solution. The bowel was returned, and there was not the slightest disturbance of the peritoneum. All operations are done under spray. He himself never did ovariectomy, because there was an ovariectomist in his hospital, but all of his six colleagues, with one exception, employed the antiseptic treatment as carefully as he himself, and their success is in proportion to the amount of care they use. Lister said many other things of interest, but lack of space will not admit them here. He spoke three hours, and kept the attention of his audience to the end. He explained away the report that bacteria had been seen under his dressings, by saying that the report was started by Ranke, Volkmann's assistant in Halle, who thought he had discovered bacteria, but when Ranke came to Edinburgh, Lister

showed him that these supposed bacteria were only a microscopical illusion, a false impression caused by a movement of the fluid in the field of the microscope, which movement was communicated to particles of inanimate matter which resembled bacteria. Ranke confessed his error.

In the Section on Medicine, Dr. J. J. Woodward read his paper on typho-malarial fever, and answered the question, "Is it a special type of fever?" in the negative. Curves which he has constructed show that this form of fever occurs most intensely in autumn. Some sections, as New England, New York, West Virginia, and others are free from this fever, but it prevails in the Southern States and on the Atlantic coast, increasing as we go south. Throughout all the great regions occupied by our armies in the late war, these fevers prevailed with excessive force; disordered livers and big spleens were abundant.

Typhoid fever is more frequent in the North than at the South, but exists everywhere. It decreases as we go south, but areas occur in which it is prevalent. Liebermeister compared the statistics of typhoid fever and found it generally autumnal, except in Milan. Dr. Woodward thinks that Liebermeister's curves represent the annual course of typhoid in America, and has addressed the question to secretaries of boards of health all over the country, but has not yet had time to analyze their replies. He thinks that typhoid rages most from September to November. In numerous districts of America, intermittent and remittent fevers once prevailed. The intermittent fevers decreased, and remittent took more and more frequently the form of typhoid fever. When the periodical fevers form epidemics, the typhoid retires until they disappear.

The supposition that diseases can exist only as entities is dead. The typhoid and intermittent do exist as hybrids. This was appreciated by Dickson and Drake. Dr. Woodward does not mean that typho-malarial fever is a type, but a condition, due to exposure to elements which cause intermittent and typhoid fevers. In groups of cases in which the malarial element at first predominated, but after a week typhoid and continued symptoms set in; some symptoms failed, as rose spots and diarrhoea, but other symptoms were present. Many cases ended favorably, because Dr. Woodward thought of the free use of quinine. Fatal cases showed, at autopsy, only sharp catarrh of the bowels, but sometimes the glands of Peyer were swollen and pigmented, or the surrounding mucous membrane was pigmented. In others the spleen and liver were enlarged, and a diphtheritic condition of the mucous membrane of the bowels was found. In fact, every variety of difference between typhoid and intermittent existed. Dr. Woodward could not and would not attempt to draw the line. In a second class of cases, typhoid predominated. They were clinically more like typhoid, but there was an unwonted tendency to intermissions and periodicity. There were also gastric disturbances

and ague spasms. But after death these cases showed only typhoid conditions. The spleen was much enlarged in many cases. Uncomplicated typhoid was not the prevailing form, whatever may have been said.

Dr. Woodward sees in periodicity an additional reason for the great mortality in our army. A scorbutic taint was also widespread, and must have influenced the general condition of fever patients, increasing their tendency to mental and bodily debility. In fatal cases, Peyer's patches were in the form of black sloughs, evidently modified by the scorbutic element.

"Is typho-malarial fever a special type of fever?" Dr. Woodward's opinion is that it is not, but only a hybrid of old and well-known conditions. The essential point is the recognition of hybrid or complicated forms of typhoid and malarial fevers. The scorbutic element was only the accident of our war. Dr. Woodward still believes that simple typhoid and simple remittent did occur, but to what extent has not been tabulated.

He closed his paper by quoting leading men who accept his theories.

In the Section on Medicine, the afternoon was mainly occupied in discussing the question as to the duality or unity of croup and diphtheria. The majority were decided disciples of the dual theory.

The paper on Medical Teaching, by Professor Reid, of Halifax, advocated the greatest simplicity in teaching, in the use and number of terms. The paper, though clear in matter and good in quality, was so elementary in character that it was voted that it should not be reported to the general meeting.

In the Section on Obstetrics, the papers for the day were read and warmly received. An extra paper on Dressing of the Pedicle in Ovariectomy was also read, and gave rise to the usual long discussion.

In the Section on Dermatology, the question, "Are eczema and psoriasis local or constitutional manifestations?" was discussed in the paper read by Dr. Bulkley. The unanimous decision was in favor of the constitutional character of these affections.

Your reporter failed to hear the probably interesting paper on the Excretory Functions of the Liver, read by Dr. Austin Flint, jr., before the Section on Biology.

This section listened to Professor Johnston's paper on Microscopy of the Blood. It was stated during the reading of the paper that there are two varieties of fish which have circular red blood corpuscles.

The discussion which followed settled into consideration of the old question concerning the ability of microscopical experts to distinguish the blood corpuscles of man from those of animals. The ground taken by Dr. Richardson is, that if the question be narrowed down to whether this blood be that of man or of sheep, the microscope will reveal the difference without failure. Nothing new was developed by the discussion.

The Obstetric Section listened to Dr. Byford's paper on Uterine Hæmorrhage. The remaining sections were but poorly attended.

Monday evening, the physicians of Philadelphia gave the delegates a reception at Judges' Hall in the Centennial grounds.

The two receptions given by Drs. Thomson and Wilson were fully attended, and very elegant in character.

WEDNESDAY'S PROCEEDINGS.

The International Medical Congress reassembled this morning at ten o'clock, in the chapel of the University of Pennsylvania, West Philadelphia; Dr. S. D. Gross in the chair.

Dr. John L. Atlee moved that the Secretary or the Publishing Committee be requested to send to the Governor of each State and Territory, and to each Province in Canada, a copy of the address of Dr. Bowditch. Adopted.

Dr. I. Minis Hays reported that the names of over four hundred delegates had been registered.

The National Temperance Society here presented a request, which was quietly and unanimously tabled.

Dr. Seguin, of New York, addressed the congress, after which the following was adopted:

"The International Medical Congress of 1876 recognizes the advantages which would accrue from the introduction of a gradual uniformity in the multiple and heterogeneous elements of physic, as posology, nomenclatures, etc., and in the means and records of medical observation.

"In consequence, the congress appoints three delegates to the International Congress of 1877, to meet at Geneva, Switzerland, with the special duty of presenting a schedule of the means of uniformity in physic actually applicable in all countries, and another of those which could soon be made acceptable by the profession at large. Said delegates to be advised to invite the co-operation of the men who have already worked for the same cause at the International or National Medical or Pharmaceutical Congresses of Paris, Vienna, St. Petersburg, Brussels, and Buffalo."

Reports from the different sections were then presented.

The Section on Mental Diseases reported on the question of Responsibility of the Insane for Criminal Acts, as follows:

"*Resolved*, That there is at present manifested a tendency to hold the insane responsible for the commission of acts. That this tendency is unjust, unphilosophical, and contrary to the teaching of pathology, which clearly points out that insanity is the expression of disease."

The Section on Sanitary Science reported on the paper on Hospital Construction and Ventilation read by Prof. Stephen Smith, of New York, as follows:

"*Resolved*, That the report of Dr. Smith be recommended to the congress for publication. While this section does not pass judg-

ment as to the conclusions of the report, the paper contains much of an interesting and historical character."

The Section on Otology, on the question, "What is the best mode of uniform measurement of hearing?" reported by Dr. Charles H. Burnett, concludes that "the preference should be given to the voice over the watch and tuning-fork, and recommends a series of test words."

The Section on Biology, in reference to the paper by Prof. Austin Flint, Jr., on Excretory Functions of the Liver, reported Dr. Flint's conclusions as follows:

1. Cholesterine exists in health in the bile, the blood, and nervous matter, also in the crystalline lens, in the spleen and in the meconium.

2. Cholesterine is found for the most part in nervous matter, from which it is passed into the blood. The blood gains cholesterine in its passage through the brain. Its formation is constant, and it is always found in the blood.

3. Cholesterine is separated from the blood by the liver, and is discharged with the bile. It pre-exists in the blood, serves there no useful purpose, and if it is allowed to accumulate, blood poisoning results.

4. The bile has two separate and distinct functions, to which the so-called biliary salts, glycocholate and taurocholate of soda, contribute; these do not exist preformed in the blood, but are the products of secretion. The second function of the bile is excretion with depuration, this being accomplished by removal of cholesterine, which it obtains from the blood.

5. Normal fæces do not contain cholesterine. The latter substance is represented by stercorine, formerly called seroline, into which it becomes converted in its passage down the intestine. The conversion of cholesterine into stercorine does not, however, take place when digestion is arrested, or when it is not necessary, as is shown by the presence of cholesterine in its own form in the fæces during fasting, and in the meconium.

6. The difference between the two varieties of jaundice—one mild, the other severe—is dependent upon the obstruction of the bile ducts in the one instance, with re-absorption of biliary coloring matter, while in the other there is retention of cholesterine in the blood, in consequence of the destruction of the parenchyma of the liver.

7. The condition of the blood dependent upon the presence of cholesterine in the blood I call *cholesteræmia*. It is characterized by symptoms referable to the brain, and may or may not be attended with jaundice.

8. Cholesteræmia does not occur in every disorder of the liver, because even when a part of the organ is disordered, there may remain a portion still capable of performing the function of excreting cholesterine.

9. In case of simple jaundice, even where fæces are decolorized, there is an accumulation of cholesterine in the blood.

10. Cholesterine bears the same relations to the liver as urea does to the kidney.

The questions as to whether eczema and psoriasis are local or constitutional was decided by the Section on Dermatology in favor of constitutional character of these lesions.

The remaining sections did not report.

The address on Surgery was then read by Prof. Paul F. Eve, of the University of Nashville.

It is not easy to make an abstract of a paper which was almost purely encyclopædic in character.

Dr. Eve first referred to the condition in which America was left by the war for independence. Our surgeons had no name abroad. Even Physick, the "Father of American Surgery," was not admitted as house surgeon to a London hospital. But fifty years later a French surgeon said to an American student, "You ought to be proud of America, for she holds the scepter of surgery." An historical sketch of Physick then followed, including notice of his invention of the seton and forceps; his adoption of animal ligature, buck-skin being preferred; his invention of the tonsillotome; his operations for stone; his paper on Cystic and Sacculated Rectum. His nephew published a work on Surgery which embodied Physick's views. This work became a text-book in Edinburgh. Intimately connected with the rise of surgery were four other surgeons: Warren, Mott, Dudley and Gibson.

There were three distinguished Warrens: Joseph, the martyr of the Revolution; John Warren, who gave the first course of lectures on Dissection, and thus probably inaugurated the medical department of Harvard University. J. Collins Warren succeeded his father in 1815. He contributed greatly to medical literature; his work on tumors being published in his seventy-seventh year. He was the first surgeon who operated under ether. J. Mason Warren has also left a brilliant record.

Mott was then mentioned. He was the first to tie the common iliac; he tied the common carotid fifty-one times; amputated more than one thousand limbs; no surgeon ever tied so many arteries with such safety as he. Astley Cooper allowed that Mott had performed more operations than any surgeon who had ever lived. He probably never had a superior as an operator. Dudley graduated in Philadelphia, in 1806. His theory was that if the chylo-poietic viscera were properly cared for, the rest of the body would take care of itself. He took advantage of nature and rest. He originated the medical department of the Transylvania University, Lexington, Ky. He claims the first cure of aneurism by tying the common carotid. He was known as the lithotomist of the West. He cut for stone two hundred and twenty-five times, and lost only six patients.

Gibson, of Baltimore, was probably the best lecturer who ever lived in America. He was the first to tie the iliac in gunshot wound; he twice performed Cæsarean section, in both cases saving mother and child.

Dr. Warren Stone, of New Orleans, was the first to ligate a human artery with a wire.

An American surgeon was the first to cure popliteal aneurism by pressure.

This paper was eloquent and interesting, but was a closely written sketch of the men who made American surgery, and can not be fairly reproduced in a limited space.

Dr. J. M. Toner's paper was then read, his subject being Medical Biography. He said: "Gentlemen of the Centennial International Medical Congress, I appear before you to discharge the duty assigned me of preparing a biographical retrospect of the medical profession of the United States during the centennial period just passed. Though apparently an easy task, I can not approach it without hesitation, apart from the feelings of diffidence which under any circumstance this occasion and this audience must inspire.

"In glancing over the period to be embraced in this retrospect I am struck by the paucity of really striking events which influenced the practice of medicine, which have left special marks at the end of the first century of our national existence. Wars have generally been promotive of medical science, and our profession was no doubt much benefited by the contest for independence.

"For the first quarter of a century after this armed struggle, the leading physicians and surgeons were those who had served in the army. The most notable event of this period was the occurrence of an epidemic of yellow fever, which appeared in the summers of 1793 and 1798 in nearly all our Atlantic cities. This disease tested the courage and taxed the energies and best skill of the profession, and prompted the more eminent to reduce their observations to writing, and to have them published either in defense of their practice or for the laudable purpose of making contributions to medical science.

"The second quarter of the centennial period was distinguished by the introduction of vaccination, the occurrence of spotted fever, and the war of 1812.

"All of these were events which stimulated the profession to more extended studies, and became incentives to authorship; this was especially true of the disease known as spotted fever.

"The war of 1812 proved to be another great school of experience, although it was not fruitful in medical reports or publications. The aspiration which it aroused, however, in the profession, gave an impetus to the establishment of medical periodicals and the founding of medical colleges and hospitals.

"In following out the plan of dividing the century into quarters, the third may be marked as noted for discovery of anæsthesia, the epidemic of Asiatic cholera of 1832 and 1848, and the war with Mexico, as well as the discovery and the application of many new and improved methods of physical exploration in the search for disease.

"The last quarter, which has just closed, is specially distinguished by the vast experience of the late war, which was a great school, and which has benefited the medical profession of the whole country; the extended use of anæsthesia in painful surgical operations, the increase of scientific means for exact diagnosis, the introduction of new and potent remedies and modes of administration, and the founding of hospitals and medical colleges in nearly all the large cities."

In the more strictly biographical part of the address he alluded especially to Drs. Benjamin Rush, Phillip Sing Physick, Daniel Drake, John and John Collins Warren, Nathan Smith, Reuben D. Mussey, James Jackson, Nathaniel Chapman, Elisha Barton, John K. Mitchell, and John Morgan.

In the Section on Surgery, Professor Van Buren's paper should have been read in the order of the programme, but Prof. Lewis B. Sayre first read his paper on Coxalgia. Since Dr. Sayre had arranged to make a practical display of his method of treating this disease at the Philadelphia Hospital, he omitted much of the general detail of the subject. He drew the following conclusions:

1. That morbus coxarius is a disease peculiar to early childhood, or the age of reckless indifference.

2. That it is almost always of traumatic origin, and not necessarily connected with a vitiated constitution.

3. That *rest* and freedom from pressure of *the parts* involved, while at the same time the rest of the body is allowed free exercise in the open air, and a nutritious diet, is the best treatment that has yet been devised for this disease.

4. That if this plan of treatment is adopted in the early stages of this disease, the majority of cases will recover with nearly, if not quite, perfect motion and without deformity.

5. That in the advanced *second* stage of the disease, when absorption can not be produced, it is better to puncture or aspirate the joint and remove its contents than to leave it to rupture by ulceration.

6. That in the third stage of the disease, when the treatment recommended in this paper has been properly applied without satisfactory improvement, but progressive caries continues, then *exsection* of the diseased bones is not only justifiable but absolutely necessary.

7. That the operation of exsection of the hip is easily performed and attended with no danger.

8. That after exsection of the hip-joint in cases of caries the recovery is much more rapid and certain, and infinitely more perfect as to form, motion, and the usefulness of the joint and limb, than when left to the slow process of nature's exfoliation.

Dr. C. H. Mastin, the reporter on the Causes and Geographical Distribution of Calculous Disease, was unable to be present. His paper was read by Dr. H. Lenox Hodge. Dr. Mastin states that—

The *probable* causes at work in the formation of calculous affections are :

1. Hereditary influences, which control a diathesis.
2. Digestive troubles, induced by an excess or deficiency of proper diet.
3. Sedentary life, with indulgence in stimulating food, by which healthy nutrition and assimilation are altered to mal-assimilation and mal-excretion.
4. Climatic changes, deficiency of clothing for the proper protection of the body, and an arrest of the healthy function of the dermoid tissue.
5. Want of harmony between the great secreting and excreting organs of the system—the liver, skin, and kidneys—with catarrhal affections of the uro-poietic viscera favoring the formation of a colloid medium.
6. Injuries of the spinal cord, from which a proper nervous influence over the mucous membrane of the urinary organs is lost; foreign bodies introduced into the bladder, producing cystitis, with its consequent muco-purulent discharge, from which the phosphates are precipitated.

In the section relating to hereditary influences he takes the ground that gout and calculus are nearly akin, one being the result of an excess of urate of soda in the system, the other dependent upon an undue proportion of uric acid; he tries to prove that they are two different phenomena springing from one and the same root, and that consequently the causes which produce the one must influence the other.

Owing to want of time he was unable to enter into an extended review of the geographical distribution of calculous affections, and hence confined his remarks on this point to calculus in America.

The paper on the Medical and Surgical Treatment of Aneurism, by Prof. William H. Van Buren, of New York, was a very valuable compilation. The subsequent discussion was shared by Professor Lister and Prof. Joliffe Tufnell. The latter illustrated his remarks by means of photographs and prepared specimens. Rest was the treatment he especially advocated. In regard to aneurism, Lister remarked that the question was not so much as to whether an aneurism were idiopathic or traumatic, but as to the amount of danger involved in surgical interference. If an aneurism were traumatic, we at once cut down upon it and ligate the artery, knowing that no matter where we ligate the vessel will be healthy. On the contrary, in idiopathic aneurisms we may have an artery which will not bear a ligature until we have dissected far up or down its continuity. In these cases it is almost as well to do the old operation at once.

Lister said he thought the old tourniquet much safer than is commonly supposed. He believes that when it produces ill effects it has not been rightly adjusted, or it has been left in the hands of unqualified assistants. Symes had only one death in forty cases, and this because he used compression. Lister then described his treatment of *nævæ*, by strangulation, the only modification being the use of carbolized catgut ligature.

Dr. John Ashhurst, of Philadelphia, then said that in regard to the abdominal compression, Professor Pancoast had not claimed the credit which belonged to him. He was too busy a man to publish all he did. "But," said Dr. Ashhurst, "Prof. Pancoast invented a compressor which antedated Lister's instrument about two years," although it was acknowledged that Professor Lister's compressor was more perfect. Dr. Ashhurst felt that as an American he ought to claim thus much credit for a native surgeon.

Professor Joliffe Tufnell then informed the Section that in 1835 LeStrange, of Dublin, left his collection of surgical instruments to two colleges in that city, and that among them was a compressor, invented by LeStrange, proving that there is almost, literally, nothing new under the sun. But it was felt by some that Tufnell was not quite fair in this allusion to LeStrange's instrument, for it was a simple abdominal compressor, used only in treatment of aneurism, whereas Pancoast's compressor was invented and used entirely for the purpose of checking and controlling hæmorrhage during operations at the hip-joint, so that a comparison of two similar instruments which were invented for entirely different uses should not have been made.

It was then announced that Professor Estlander, of Finland, would read, on the following day, a paper on Osteo-Sarcoma, and another on Vesicle Disease in Finland.

In reply to a question concerning his statement that animal ligatures became reorganized, Lister said, "I do not claim that the ligature comes to life again, but that it disappears particle by particle, the place of each decaying particle being filled by a new one, just as in rebuilding a wall we might put a new brick in the place of an old one."

JEFFERSON COUNTY, KENTUCKY, MEDICAL SOCIETY.

Reported by J. T. DAVIS, M. D.

The following named physicians of the regular school met in the office of Dr. S. N. Marshall, of Jeffersontown, Ky., June 10, 1876, for the purpose of organizing a medical society:

Dr. J. C. Seaton, Jeffersontown, Jefferson County; Dr. S. N. Marshall, Jeffersontown, Jefferson County; Dr. C. Seaton, Jeffersontown, Jefferson County; Dr. M. L. Cooper, Fern Creek, Jefferson County; Dr. J. T. Davis, Fern Creek, Jefferson County; Dr. Callahan, Spencer County; Dr. B. H. Blair, River View, Jefferson County; Dr. S. O. Withirbee, Middletown, Jefferson County; Dr. C. W. Harvey, Middletown, Jefferson County.

Dr. J. C. Seaton being called to the chair, the following were elected as officers of the Jefferson County Medical Society, to serve for one year:

Dr. S. N. Marshall,	President.
Dr. J. T. Davis,	First Vice-President.
Dr. C. W. Harvey,	Second Vice-President.
Dr. S. O. Withirbee,	Secretary and Treasurer.

Board of Censors.—Drs. M. L. Cooper, Blair, Callahan, Harvey, and C. Seaton.

A constitution and by-laws were adopted, also the Code of Ethics of the American Medical Association. A committee was then appointed to prepare a fee bill, to be reported on at the next meeting. Drs. J. C. Seaton and J. T. Davis were then appointed as essayists for the next meeting, after which the Society adjourned to meet in the same place on the second Saturday in July.

The Jefferson County Medical Society met in Jeffersontown, July 8, Dr. Marshall in the chair. Minutes read and approved.

Committee on fee bill reported a bill which was adopted. Dr. J. T. Davis read an essay on Atrophy of the Gastric Tubules; received and ordered to be filed in the archives of the Society.

Dr. J. C. Seaton reported some interesting cases of croup.

Society met again in the same place, August 12, Dr. Marshall in the chair.

Dr. W. Goldsmith, of Louisville, and Dr. Owen, of Jefferson-town, were elected members. Dr. J. C. Seaton read an essay on *Tabes Messenterica*, to be put in the archives. Dr. Goldsmith reported some interesting cases occurring in the practice of his brother, Dr. Middleton Goldsmith, late Prof. Surgery in Kentucky School of Medicine, Louisville. Dr. Callahan appointed to read an essay at next meeting; after which Society adjourned till the second Saturday in September.

Society met again at the same place, September 9, Dr. Marshall in the chair. Minutes read and approved.

Dr. Fry was introduced to the Society, and Dr. Allen made a member. The following were appointed as a Committee on Publication for one year: Drs. Withirbee, Owen and Davis. Dr. Callahan read an excellent paper on the Migration of Pus. Dr. J. T. Davis also reported a case of hour glass contraction of the uterus before delivery. Papers ordered filed in Society's archives. Dr. J. C. Seaton reported the successful treatment of three cases of typhoid fever with the *baptisia tintoria*. Dr. Marshall made some interesting remarks as to the value of the thermometer as a diagnostic aid. Dr. Blair was appointed as essayist for the next meeting (in October).

Selections.

Analysis of Six Nostrums sold as Ague-Cures.

By O. L. CHURCHILL, Ph. C.

Five of these articles were found to contain one or more of the cinchona alkaloids (chiefly the cheaper alkaloid); the remaining one contained no alkaloid. None contained arsenic, strychnia, or mercury.

The quantitative determination of the alkaloids, from well known difficulties, is presented as only approximate. The following was the general plan of separation, modified in several particulars, as found necessary for each mixture. From a weighed portion of the mixture, the alcohol, if any, was evaporated; the residue diluted with acidified water and filtered (more than once if need be); the filtrate precipitated by a slight excess of caustic soda; in most cases, the precipitate dissolved in acidified water, the solution concentrated and dissolved with strong alcohol, the filtrate evaporated and the residue dissolved with water. Care was taken to avoid loss, by well washing the residues of extraneous matter, and not washing the precipitates of alkaloids at all or but slightly. Taking a final precipitate by caustic soda, the alkaloids were then approximately separated from each other by the use of ether as a solvent, potassium iodide to precipitate quinidia, potassium sodium tartrate to precipitate cinchonidia, &c.*

1. *Ayer's Ague-Cure*.—Each bottle contains six fluid-ounces of a dark-red, syrupy liquid, with a very slight white sediment. Taste, very bitter and slightly peppery, with a slight taste and odor of wintergreen oil. An alcoholic extract (tincture) of cinchona bark, with additional and amorphous cinchona alkaloids (chinoidin), heavily saccharine and slightly aromatized. It contains a resin which presented the physical properties and gave apparently the physiological effects of podophyllum resin, but it was not so far separated from cinchona constituents as to be positively determined. It has free and combined sulphuric acid and the white sediment is calcium sulphate (from the calcium salts of the bark.) In *one fluid-ounce*:

* Fluckiger & Humbury's Pharmacographia, 327.

Amorphous alkaloids (chinoidin),	3.2 grains.
Cinchonia,	3.0 “
Cinchonidia,	0.7 “
Quinia,	0.8 “
Quinidia,	1.0 “
<hr/>	
Total,	8.7 “

The cost of a bottle will not exceed 35 cents—the price being at wholesale, 65 cents, and at retail, \$1.

2. *Wilhoft's Antiperiodic Fever and Ague-Cure*.—The bottle contains four fluid-ounces of a thin, dark-red liquid, with the odor of cinchona bark, a very bitter and acid taste, and acid reaction. It consists essentially of an infusion of cinchona bark made with water containing aromatic sulphuric acid (like those of the U. S. P.) and probably with an addition of quinia sulphate. One fluid-ounce contains 3.0 grains of quinia and 5.4 grains of free and combined sulphuric acid (1.5 grains free). Cost of a bottle, not over 25 cents; price, \$9 per dozen, \$1.50 per bottle.

3. *Christie's Ague Mixture*.—A bottle contains seven fluid-ounces of a very dark syrupy liquid, one-fourth filled with sediment, and having a very bitter and peppery taste and an odor of common molasses. The sediment was powdered capsicum and a little resinous matter. The solution consists of a tincture of cinchona bark (the alcohol being 30 per cent. by weight), with cinchonia sulphate, and common molasses. Cost, not over 25 cents per bottle; price, at wholesale, 62 cents; at retail, \$1.

4. *Peterman's Michigan Ague-Cure*.—Each bottle contains five fluid-ounces of a red, syrupy liquid, with much resinous sediment, a very bitter taste, and odor of cinchona. Contains an alcoholic extract of the bark, with chinoidin as the chief medicinal agent, and with a little sulphuric acid and syrup. Cost, complete, not over 25 cents per bottle; price at wholesale, 60 cents; at retail, \$1.

5. *Jayne's Ague Mixture*.—In each bottle, seven and a half fluid-ounces of a mixture having an odor and taste of rhubarb, dandelion and common molasses. It contains quinia sulphate and traces of other cinchona alkaloids, but not enough to render the mixture very bitter. The alkaloids were, with some difficulty, separated by benzine in presence of alkali; other means having failed. Cost, about 35 cents; price, at wholesale, 60 cents; at retail, \$1.

6. *Rhode's Fever and Ague-Cure, or Antidote to Malaria*.—In each bottle twelve fluid-ounces of a black, turbid liquid,

having a sweet and astringent taste. On standing, the sediment filled one-third of the bottle. The sediment is charcoal. The solution contains a little tincture of chloride of iron, partly reduced to ferrous salt by sugar, which is present; also a trace of sulphuric acid (a trifle of ferrous sulphate may have been added). Nothing more. "Bottle to be well shaken," etc.; one tablespoonful three times a day. "Most people could take three times the amount without any uncomfortable feelings." "Persons who find it to bring on unwished-for actions, should place the contents of two or more bottles in an open dish in their sleeping apartments." Price, at retail, \$1.

Salicylic Acid as a Preservative.

Fresh meat may be preserved by sprinkling over it dry powdered salicylic acid. It is now recommended to make a saturated solution of the acid in water, and to cover the meat with it in closed vessels. Lean meat, free from bone, has been preserved in such a liquid, unchanged, except in color, for fourteen months. The dry acid may be dissolved in the brine in which salt meats are preserved. Butter may be kept for a very long period without putrefaction by the addition of the acid, in the proportion of one part in 500. The same end may be attained by covering the butter with a weak aqueous solution of the anti-septic. Salicylic acid is now used in making canned soups and beer. A small proportion of the dry acid, mixed with preserved fruit and vegetables, also serves a good purpose.

Removal of an Enlarged Spleen.

Mr. Spencer Wells recently removed at the Samaritan Hospital a large spleen, which had been diagnosed as an ovarian tumor. On tapping it its nature became apparent, and nothing was left but to give the patient a chance for her life by its removal. It weighed eleven pounds. The vessels were all carefully secured, but the patient sank in a few hours. This is a very rare form of diagnostic error, and there must have been a very close resemblance to an ovarian tumor, for Marion Sims was present at the time, and these two masters of the subject are not likely to have been readily deceived.—[*London Letter in Phila. Med. Times.*]

RULES IN ADMINISTERING ARSENIC.—In the *Medical Press and Circular*, Dr. H. Griffith gives the following rules for the administration of arsenic :

1. It should never be given where there is a feverish state of the system ; a quick pulse and a hot skin contra-indicate its employment.

2. It should be given shortly after meals—never on an empty stomach.

3. It should not be given in the solid form, nor should it be given in increasing doses. As a rule, five minims of Fowler's solution should be the maximum dose for an adult.

4. The dose should be diminished, or the administration altogether ceased, on the occurrence of pain in the epigastrium, nausea, or irritation of the eyelids.

DR. J. M. TONER, of Washington, has offered the profession of Pittsburg to denote them a library of medical and scientific works of the value of \$20,000, imposing, however, two conditions: first, he asks that a fire-proof building be erected for the library; and second, that it be called by his name. He agrees to donate further a sum sufficient to secure to the library an annual lecture on medical and scientific subjects.

FETID FEET.—A very obstinate case of this complaint, in a workman, is reported in the *Bull. de Ther.* by Dr. Orteug. In the manufactory in which he worked he was avoided by his fellow-workmen, and when he entered a room the window would be opened. He had consulted several physicians, but without success. The epidermis of the sole of the foot was white and mascerated, and there were little ulcerations at the clefts of the toes and around the nails. M. Ortega advised him to apply compresses soaked with a solution of chloral, which had the effect of rapidly destroying the smell and curing the ulcerations.

CHROMIC ACID FOR WARTS.—Three or four applications of this acid will cause the disappearance of warts, however hard, large or dense these may be. The application gives rise to neither pain, suppuration, nor cicatrices, the sole inconvenience being the production of a dark brown color.—[*L'Union Medicale*.

Correspondence.

GALENSVILLE, OHIO, Sept. 15th, 1876.

TO THE EDITOR OF THE LANCET:

In your September number is a *review* of Dr. Bartholow's work on *materia medica*. There are so many manifest signs of injustice in said *critique*, that I hasten to correct them. In the first place your "reviewer" is evidently not of the opinion that Dr. Bartholow is a great *original investigator*; in this belief he is wrong, as I shall fully demonstrate. On page 843, September LANCET AND OBSERVER, your "reviewer," speaking of the "scheme" of Dr. Bartholow's book, remarks, that it "bears a striking similarity to that used by Kohler" (*Handbuch der Physiologischen Therapeutik und Materia Medica*). We subjoin his proof, quoting both authors:

Bartholow.

"1. Those used to promote constructive metamorphosis."

"2. Those used to promote destructive metamorphosis."

Kohler.

"1ste Klasse: Mittel, welche die Oxydationsvorgänge im Organismus und den Stoffwechsel unter Zunahme der Ernährung vermehren."

"2te Klasse: Mittel, welche die Oxydationsvorgänge im Organismus und den Stoffwechsel unter Abnahme der Ernährung erhöhen."

Now, Mr. Editor, we fail to see where the "reviewer" finds any identity between the two authors, and we confess an entire ignorance of German, if such identity can be demonstrated. The "reviewer" should most certainly remember that all authors must

"Copy not too closely, but record
More justly, thought for thought, than word for word."

Your "reviewer" has failed to give Dr. Bartholow credit for his *original* investigations in regard to *aliments*. Horace Smith has pleasantly remarked: "While the shallow pedant endeavors to impose upon the world by a serious deportment, minds of a superior order will be often found abandoning themselves to playfulness and puerility." This remark is especially applicable to Dr. Bartholow; the keen sense of fun pervading his chapter on *aliment*, at once places this genial, sunshiny, and mirth-loving author in the front rank of Amer-

ican humorists; while some of his witty aphorisms deserve more than the brief notice your "reviewer" gave them. Heretofore, Dr. Bartholow has not been considered a worshipper at the shrine of Momus, but the infection of wit has at last reached even his brain.

"That head with greater than *magnetic* power
Caught it, as Danae caught the golden shower."

On page 16, of Dr. Bartholow's book, we read: "*Spring chickens are more tender and delicate than the fully developed fowl.*" Can the value of this observation be overestimated; is it not fresh and strikingly *original*? The experimental investigations made by the erudite author, in his private laboratory, over his kitchen, have absolutely determined the fact, that said "chickens" are "more tender and delicate than the fully developed fowl." Our heartfelt thanks are due to experimental physiology for the final elucidation of a problem, which has been, heretofore, involved in the realms of doubt. It is to be regretted our author has not pushed his brilliant experiments further, and analyzed more fully the injurious effects of *mint sauce* on *lamb*, and *onions* on *duck*. Dr. Bartholow's remark, that "*pork is rarely prescribed for the sick,*" is very facetious, and worthy of Joe Miller. On page 24, the distinguished author remarks, "*a great many varieties of fish are used as food.*" This is most certainly new, *original*, and startling; still, great minds must

"Expect no credit for too wondrous tales,
Since Jonah only springs alive from whales."

Mark the quaint ingeniousness (p. 27), with which our gentle humorist asserts: "*Mush is boiled cornmeal.*" What a world of new information is expressed in this one short sentence; only the acumen of a profound medical sage could have solved this mystery. As a valetudinarian philosopher Dr. Bartholow has no equal; his experimental researches in his "private laboratory" have been simply grand, as witness the following: "*Corn, when green, is prepared for the table by boiling,*" or, yet again, "*Cabbages are rarely prescribed for the sick.*" Heretofore, most practitioners have been in the habit of *prescribing* four or five cabbages to each patient every two or three hours. Dr. Bartholow's advice to the contrary will, no doubt, be followed by all physicians, hereafter. This *original discovery* must fairly overcome the profession with grief,

"As the Scotch fiddle with its touching tune,
Or the sad influence of the angry moon."

We hope that your "reviewer" will now apologize to the readers of the LANCET AND OBSERVER, for even intimating that Dr. Bartholow is not an *original* investigator. "*Experto crede Roberto.*"

Your "reviewer" does not notice at length Dr. Bartholow's article on *transfusion*. Dr. Ladislas Belina (*Archives de Physiologie Normale et Pathologique*; Paris, 1870,) was so much pleased with this article, that he has actually used some of Dr. Bartholow's exact words, without ever mentioning the distinguished author's name or using quotation marks; as, witness the following:

Belina, 1870, p. 465.

"Eulenburg et Landois recommandent, dans la cas ou la substance toxique a penetre la sang et menace la vie saus qu'on connaisse d'antidote."

Belina, p. 467.

"Dans un cas d'epilepsie, le Professeur Nussbaum a applique la transfusion avec un success complet."

Bartholow, 1876, p. 16.

"Eulenburg and Landois advise transfusion in cases of danger to life from poisons for which there are no antidotes."

Bartholow, p. 16.

"Nussbaum has employed transfusion with complete success in epilepsy."

It will be seen that Belina, wishing to show his familiarity with authors on the subject of transfusion, has used the identical words of Dr. Bartholow, also many of his bibliographical references. This is certainly a high testimonial as to the value of the distinguished author's opinions abroad. Your "reviewer" should most assuredly subside after this;

"And grateful for the dainties on his plate,
Declare his Lordship can, at least, *translate*."

Your "reviewer" has knowingly accused Dr. Bartholow of imitating Trousseau; on the contrary, some of Trousseau's articles are almost unlike Dr. Bartholow's; as, witness the following regarding "*iron*," "*arsenic*," and "*gold*."

(Fer.) *Trousseau*, 9th Ed., p. 12, 13.

"Le fer n'est point une substance etrangiere a l'organisme," etc.

"L'analyse ainsi conduite a montre l'existence normale du fer dans le suc gastrique, dans le cheveux, dans les plumes des oiseaux, dans le blanc et le jaune d'oeuf de poulet, dans la chyle, la lymphe, la bile, dans les calculs biliaires, dans le pigment noir des yeux, enfin dans la lait et l'urine, mais seulement a l'etat de traces."

(Iron.) *Bartholow*, p. 86.

"Iron is not a substance foreign to the organism," etc.

"Chemical analysis has demonstrated its constant presence in the gastric juice, chyle, lymph, bile, in the pigment of the eye, and in traces in the milk and urine."

(Arsenic.) *Trousseau*, p. 408.

"Un feuille de papier Joseph est imbibe dans cette solution, puis seccee divisee et pliee en forme de cigarette de cette maniere, chaque cigarette peut contenir un poids connu d'arseniate de soude de 5 a 20 centigrammes. Les maladies apres avoir allume la cigarette, en aspirent la fumee dans la bouche; puis, par une lente inspiration, la font passer dans les bouches. Ou aspire d'abord quatre ou cinq gorgers," etc.

(Or.) *Trousseau*, p. 124.

"Il y a chez les hommes principalement plus de salacite, et quelque fois il peut se montrer un priapisme douloureux."

"Les femmes moins par des appetites veneriens exagerees que par l'augmentation du flux et de la fluxion menstruels."

"Salivation entierement different de celle que prevoque le mercure, in ce sens que les gencives et la membrane muqueuse buccale ne sont ni gonfrees ni douloureuses."

Your "reviewer" is unfair enough to call such extracts, as the above quoted, "*imitations*" of *Trousseau*. The ignorance of your "reviewer," regarding the French language, is fully evidenced; I leave it to any unbiased linguist whether or no there exists the least similarity between the quotations of *Bartholow* and those of *Trousseau*.

"A vulgar scribbler, *certainly*, stands disgraced,
In this nice age when all aspire to taste."

The trouble with your "reviewer" is this, he wishes all authors to enclose the words of others in quotation marks. The genius of *Dr. Bartholow* soars above quotation marks; he is much too *original* to use them. It has been said that the minds of great men "run in the same channels." This is the reason that *Trousseau's* and *Bartholow's* remarks are similar, if they happen to even be so. The trouble with your "reviewer" is that he is jealous of *Dr. Bartholow's* book.

"T'is pleasant, sure, to see our name in print,
A book's a book, although there's nothing in't."

We need not further defend *Dr. Bartholow's* great work; it

(Arsenic.) *Bartholow*, p. 108.

"Unsized white paper, moistened with this solution, dried, and cut into twenty equal parts, and each part rolled into a cigarette," etc.

"The arsenite of soda may be used in the same way and under the same conditions."

"When the cigarette is lighted, the patient inhales the smoke by a single inspiration," etc.

(Gold.) *Bartholow*, p. 187.

"In men, marked aphrodisiac effects are produced and the erections are often painful."

"In women, increased venereal desires, and augmentation of the menstrual flux."

"Salivation caused by the preparations of gold differs from the mercurial in that there is no tenderness or ulceration of the gums."

needs no defense. Let the Stilles, Woods, Trousseaus, Pidouxes, Kohlers, and Husemans fade away into insignificant space, for

“What reams of paper, floods of ink,
Will some men spoil who never think.”

We shall still continue to peruse the pages of Bartholow's work, culling out their beauties, gloating over their *originality*, exclaiming with the poet:

“What varied wonders tempt us as we pass,
The cow-pox, tractors, galvanism and gas.”

Your “reviewer” will yet awake the *sleeping* Nemesis, as a certain gentleman has already done (see Louisville Practitioner, September, 1876, Dr. B.'s prize essay on Dr. C.) As for ourselves, awaiting expectant the utter annihilation of your terribly misguided “reviewer” by Dr. Bartholow, we shall dismount from our Pegasus, and remain a silent witness of what takes place.

Yours therapeutically,

TIMOTHY TABBS, M. D.

P. S.—Please send me five copies of Dr. Bartholow's great work by “express.” I wish to distribute the same to some “*ignorant practitioners*” in this neighborhood.

CONSTANTIA, DELAWARE Co., O.

EDITOR LANCET AND OBSERVER:

I noticed in the June number of your excellent journal the proceedings of the Delaware County Medical Association, and I wish to make some corrections in regard to my paper on Neuralgia, where the reporter states: 1st, that I would use but one-twelfth of a gr. morphia; 2d, that I did not use quinia, hypodermically. At that time I was treating a great many cases of intermittent neuralgia, and on account of the failure of medicine per orum, I concluded to try the hypodermic treatment. I used quinia in this way with wonderful success, relieving some cases of long standing when every other means failed. In the use of quinia in this way, I found grs. iv to produce all the effect that grs. xx or more did given by the stomach. I gave about eighteen doses, and it worked like a charm. The small doses of morphia referred to were only given in combination with the quinia, to prevent the sulph.

acid, in which the quinia was dissolved, from irritating the tissues too much, and producing inflammation and abscess, which it might have done had it been given alone. My plan of giving quinine is, to stir up grs. i or more in the amount of water which I intend to use in the syringe, and also the morphia; then add the acid sulph. dil. drop by drop, until the solution is changed from the milky to water color. By adding the water before the acid I find it requires less acid. I would always recommend the addition of morphia, as it quiets all pain at the point of insertion, and thereby relieves the patient of not a little suffering, and also the dread of this manner of treatment.

S. C. DUMM, M. D.

SEPTEMBER, 1876.

TO THE EDITOR OF THE LANCET:

DEAR SIR—Some time ago you published a letter from a correspondent, calling the attention of those in authority in our medical schools and hospitals to the importance of providing proper instruction in the new speciality in medicine, "Laryngoscopy and Rhinoscopy;" its great importance to the general practitioner as a means of diagnosis, and of local treatment of certain diseases, which formerly were only guessed at.

It is, therefore, with great pleasure that I take the opportunity of informing your readers (and especially the Alumni of the Miami College) that our Alma Mater is the first school in the West that will afford instruction in this important branch, for some years taught in eastern schools.

I am informed that the Board of Trustees of the Miami Medical College have appointed Dr. B. Tauber lecturer on this subject, whose success as a specialist in this branch indicates him to be well qualified for the position.

Yours, etc.,

B. H.

Editorial.

MEDICAL COLLEGE OF OHIO "SOCIAL," given by the Faculty, Thursday Evening, Sept. 14th, to the Alumni and invited guests.

This was one of the events of the season. The entertainment in every particular was a decided success. The early

part of the evening was devoted to an exhibition by Professor Longworth of a series of microscopical photographs, enlarged by the stereopticon, representing in a beautiful manner the minute anatomy of the various tissues of the human body and of the lower animals. The micro-photographs called forth expressions of admiration from all who were fortunate enough to be present. This method of illustration will undoubtedly prove to be a popular way of teaching minute anatomy, histology and pathology.

The guests were then taken in hand by the Faculty and shown through the various rooms—the whole building having been thoroughly renovated and put in the most complete order. On one floor we were shown six good-sized rooms transformed into small amphitheatres, each furnished with chairs for about twenty-five or thirty students. These rooms are especially designed for clinical teaching; in this manner the dispensary patients will be utilized to the very best advantage.

The chemical and physiological laboratories contain an ample supply of apparatus, drawings, charts, microscopes, etc., for use of students. In fact the Faculty have spared no expense in obtaining the most modern and approved appliances for teaching the coming doctor. Even the dark, musty and dingy old museum had put on its good clothes, and for once in the history of the old college presented an inviting appearance. The guests of the evening having feasted their eyes to their heart's content, were next called to partake of a most bounteous repast. As all the world knows that doctors do know how to dispose of the good things of this world, by putting them just where they will do the most good, we need make no further comment on this part of the Social, than to say, that each member of the Faculty proved himself to be a right royal host. We were informed that the prospects for a large class during the next session are very good, seventy students having already matriculated.

OUR JOURNAL.—For thirty-seven years the LANCET AND OBSERVER has been the favorite organ of a large portion of the medical profession in the Ohio Valley and the West. During that time not a single number has been missed. A Medical Journal takes rank and standing exactly in accordance with the character of its contributors and their contributions, and we are proud to say, that the list of contributors to the LANCET AND OBSERVER contains the names of nearly all the representative men in the profession who have practiced medicine in

the West since the first issue of *The Western Lancet*; their writings constitute an important part of the current medical literature of the times. We take pleasure in acknowledging our gratitude to those friends of the Journal who have so generously contributed to its pages, and also to those who have shown more than a selfish interest in its management by sending the names of one or more new subscribers. With the beginning of this year the size of the Journal was increased by the addition of thirty-two pages of reading-matter each month. We have in contemplation the further improvement of the Journal and will not be satisfied until we are enabled to publish one of the largest and most complete Medical Journals in this country. Our design is that the LANCET AND OBSERVER shall be especially an exponent of medicine and practice in the great West. In order to our success we are entirely dependant on the labors of the friends of the Journal. We want your contributions. Had we the time, every subscriber would receive a letter urging him to contribute something of his observations, studies, or experience for the common good.

We want the secretaries of societies to send us a copy of their proceedings for publication, thus putting their minutes in permanent shape, so that they will be of some value and easily referred to by members of the society.

We want every subscriber to send the names of one or more new subscribers, at the following rates: Club of two for one year, \$6 00; Club of four, \$10 00. This low cost of the Journal places it within the reach of every physician who makes any pretensions to keeping up with the medical literature of the day, and at the same time makes the LANCET AND OBSERVER the cheapest Medical Journal published. Books of the same size as one volume of the LANCET AND OBSERVER generally cost six or seven dollars. Our subscribers can with a little effort send us one thousand new subscribers within the next two months; do so and you will be more than repaid by the increased value of your Journal. All new subscribers for the year 1877 will receive the Journal from the date their subscription is received. If received within the month of October they will thus receive the October, November, and December numbers *Free*.

A good word for the Journal at your next society meeting, with a proposition that a club be formed, will undoubtedly be met with favor.

Recently while making a call on Professor W. Clendenin, we were shown a series of very fine anatomical drawings and plates, designed and prepared especially to illustrate the

Professor's lectures. The drawings and plates are double life size and most of them beautifully colored. They are the handiwork of Dr. S. H. Collins, a graduate of the last class in the Miami Medical College. We need scarcely say that these illustrations are not designed to take the place of the dead subject, but are to serve as adjuncts in imparting instruction to the students.

The Cincinnati Medical Colleges are all donning metropolitan attire, are being furnished with all the modern and improved appliances for imparting instruction to those who come to their doors seeking medical wisdom. The respective Faculties are composed of earnest, pains-taking and well qualified teachers, and attractions are presented that are not excelled in any city east of Philadelphia. The large and accessible hospitals furnish ample clinical material, and more complete preparation has been made to give direct clinical instruction than ever before in this city.

Dr. M. B. Wright, the veteran obstetrician of this city, has after a long service retired from active duty on the staff of the Cincinnati Hospital. Professor W. H. Taylor, of the Miami Medical College, was appointed to fill the vacancy.

The very full and satisfactory report of the Proceedings of the International Medical Congress, appearing in this number of the LANCET AND OBSERVER, should be credited to *The Boston Med. and Surg. Journal*.

Reviews and Notices.

Monthly Review of Nervous Disorders and Insanity. By Prof. D. A. MORSE, M. D.

Diseases of the Nervous System, vol. xi. of Ziemssen's Cylopædia of the Practice of Medicine. This volume the author entitles: *Krankheiten der Peripheren Cerebro-Spinal Nerven*, the English, or translation, *Diseases of the Peripheral Cerebro-Spinal Nerves*. New York: William Wood & Co.

Dr. William Henry Erb, the author, was born at Winnweiler, in the Rheinisch Palatinate, November 30th, 1840. He graduated in 1862 at Munich. His contributions to nervous disorders, in the German medical journals, are numerous, and exhibit the foundation he has laid for the work now before us.

Although comparatively young in the profession, few, if any in Europe, are more competent as neurologists to perform this labor. There are others recognized as specialists, who present their subjects with equal ability, who contribute largely to journals, as those who furnish the material for the next volume of this Cyclopælia. Thus: Dr. Eulenberg, editor of the *Vierteljahresschrift für Gerichtliche Medizin*, writes the articles upon cataplexy, tremor, and paralysis agitans, and upon trophic neuroses of the vaso motor system. Dr. Nothnagel, upon epilepsy and eclampsia. Dr. Bauer, tetanus. Ziemssen, upon chorea, and Prof. Jolly, that upon hysteria, which fill the next volume. The diseases treated of by Dr. Erb, as those of the peripheral cerebro-spinal nerves, are divided as follows: 1. *Functional* diseases; and 2. *Anatomical* diseases of the peripheral nerves. Much that may be termed functional and peripheral is due not to peripheral, but to disease of the nerve centers. If the conditions here described are peripheral, then also are many that occupy the attention of writers in the next volume. It is not a peripheral disease, simply because phenomena are manifest only at the distal extremity of the nerve. While writing this the writer has under observation a case in which a large tumor, probably an enchondroma, filling the pelvis and abdomen of a patient presses upon the sciatic nerve. The pain is felt in the calf of the leg and near the ankle. The patient has been treated for sciatica, the peripheral extremities of the nerve exhibiting disturbances of this nerve. But is this the sense in which Dr. Erb uses this term peripheral? He does not define the word, but leaves us to infer his meaning. He says, "we must preserve the division, so long established, of functional and organic diseases of the nervous system. For we meet, in the first place, with an extensive group of diseases of the peripheral nerves in which well-marked functional disturbances—as pain, anæsthesia, convulsion, paralysis, and the like—are present, and in which we are unable to point to any constant anatomical lesions. These are consequently termed *functional affections*, or '*neuroses*' of the peripheral nerves. And, in the second place, we have a smaller group, comprising those in which there are distinct anatomical changes, as inflammatory and degenerative processes, and neoplastic formations, which are named '*anatomic*' or '*organic*' diseases of the peripheral nerves." Here we are somewhat confused when we examine further, and learn that in this list he puts nerves going *to* and *from* the nerve-centers. Our understanding of the term is, that a peripheral nerve is one that bears impressions toward the circumference of an organ or of the body outward from the nerve-centers, and that a nerve bearing influences or impressions toward the centers is a centripetal nerve. Taken, however, in its broadest sense, all nerves outside of the masses known as centers are termed peripheral, and Dr. Erb uses the term in this sense, whether they go *to* or *from* the central masses. He makes, however, the distinction we have made above, and in the first line of the book recognizes fully the distinction be-

tween peripheral and centripetal nerves. His first subject is neuroses of the sensory nerves, and begins by saying: Functional disorders of the centripetally conducting, or, as they are commonly termed, sensory nerves, constitute the essential feature of the so-called *sensory neuroses*. All the pathological phenomena occurring either in the peripheral or central terminal organs of centripetally conducting nerves, providing they attain a certain degree of independence, represent either partial or complete sensory neuroses. His reasons for this expression seem to be his views of what constitutes sensation, and shows that he looks to external phenomena rather than the seat or origin of the phenomena. Thus he says: Every sensation, as a general rule, results from a change caused by an external agent or stimulus acting on some excitable part of the sensory apparatus which it thereby excites. As a rule, it is the peripheral terminal organs of the sensory nerves that are excited, and in which the excitation commences. This state of excitation is conducted through centripetal nerves to the nervous central organs in accordance with the law of isolated conduction. (i. e. Romberg's theory that when starting on a fiber it continues upon that not communicating the impression to others.) "It is then transmitted to the central terminal apparatus of the centripetal nerves, inducing in them those changes which constitute the basis of *conscious sensation*." The manner in which this is accomplished is unknown. Centripetal or sensory nerves connect not only with cells, which recognize the impressions made, but also with excitomotor, vaso motor, and indirectly with those which preside over the vegetative processes and glands. Through this connection is established the radiation of impressions, and an impression arising at any point will be observed to excite action in the heart, brain, stomach, or lungs.

Sensation has its physical and metaphysical elements, but here we pause lest some one ask us where is the dividing line, and what pertains to each.

According to Dr. Erb, the *qualitative modification*, as he terms it, of sensations is determined by the qualitative anatomical differences of the terminal apparatus to which the stimulus is applied. Centers are so arranged that they respond only to special stimuli, giving rise to definite sensations, as with the organs of taste, the eye, ear, and of smell. We form an idea of the strength of a stimulus from its effect upon the sensory apparatus. This may be true of health and disease, but in abnormal excitability of sensory organs, or extreme sensitiveness there may be an exaggeration of impressions made, as an inflamed eye may be intolerant of light. Even here the effect is a measure of the force of the stimulus, and we appeal to our reason to declare the disproportionate effects of the same stimulus upon an hyperæsthetic organ and one in a normal state.

Again, the organ may refuse to respond to a stimulus, and we have "anæsthesia of conduction," diminished excitability. The

terminal apparatus may not receive an impression, the conducting power of a nerve be impaired, or the center itself have undergone change.

To the anomalous conditions in which sensations of itching, formication, numbness, etc., are felt, he applies the term *paraesthesia*. He objects to the terms employed by Eulenburg to designate various forms of sensation as of too difficult terminology. (Foot note to p. 9.)

Dr. Erb then considers what he terms physiological laws, four in number: The law of isolated conduction; the law of eccentric projection; the law of associated sensation or irradiation; and that of reflex action. Romberg, Pflueger, Lister, Brown-Sequard, Hanfield Jones, and many others discuss these laws, either as laid down or in principle.

Dr. Erb proceeds to discuss sensation, and next, p. 11, says: "The most general and the most frequently observed common sensation, which it would appear may be excited in almost all sensory organs, is *pain*." In many diseases pain is the most important, and in some the only symptom. While it gives the physician great annoyance from the unwillingness of most patients to endure it with patience, it is one of his most valuable aids in determining the seat, nature, and intensity of the disease. The varieties of pain are manifold, the doctor distinguishing them in the usual way, as burning, tearing, boring, stabbing, tensive, dull, etc. He says most physiologists agree that pain is a common sensation, not of a peculiar kind, but is peculiar in degree. Valentin defines it: "Those sensory impressions which, on account of their too great intensity, become disagreeable." Wundt: "A feeling that accompanies all powerful or intense stimuli." Eulenburg: "A gradual increase of the feeling that accompanies every sensory process." To the strength of an impression that can cause pain, there can be no limit assigned. What to one would afford pleasure, to another would be pain, and the same may be said, not only of common sensation, but of the special senses. To one, the low, soft sounds of an instrument only are agreeable; to another, the clang, clash, and clatter of a brass band are more agreeable. The first would be distracted by it.

Again, this may to some extent be true with the same individual under different states of the nerve-centers, the tired and irritable center being intolerant of what at other times it would respond to in a different manner.

Is there a different path for the conduction of pain to the brain than there is for tactile sensation? Schiff, in 1859, discovered, and since has corroborated that tactile sensations are conducted to the brain through the posterior white columns of the spinal cord, whilst the paths for the conduction of pain are situated in the gray substance of the spinal cord. Dr. Erb thinks this undecided, and that violent stimuli applied to produce pain may call forth change in the gray matter.

If pain be the result, as these men claim, of increased stimuli, how does pain result in these conditions where all natural stimulus is withheld? What gives rise to pain in an inflamed eye that is excluded from the light? to pain in neuralgia? Certainly not increased stimulus, but increased excitability of the sensory apparatus, so increased oftentimes that the ordinary pressure of the blood stream is felt as painful and oppressive. Where there is no increased stimulation, is not the view of Griesinger more correct? "The essence of pain lies in a disturbance of the organization of the nerve at some point in its course." In other words, is not the pain due to change in the nerve or nerve-center rather than to the stimulus?" Dr. Erb thinks it can not be, because we can not draw a "sharply defined line of demarkation between these physiological molecular changes and pain-producing disturbances of the organization." Dr. Erb closes this consideration of pain by saying: In inflammatory and analagous peripheral pains we have to do for the most part with irritation of the terminal expansions of the sensory nerves, whilst in the neuroses we are chiefly concerned with irritations of the nerves external to and within the central organs, as well as with the central terminal apparatus, and it is upon this that most of the peculiarities of pain in neuroses depend.

* * * We shall hereafter meet frequently with phenomena of irradiation, of eccentric projection, and of reflex action in the painful affections of sensory nerves. This he claims as evidence that the above mentioned physiological laws governing the sensory apparatus preserve their supremacy.

What conclusions shall we arrive at from this chapter? Plainly that Dr. Erb treats as diseases of the peripheral nerves conditions due to irritation of the nerve-centers, that pain may be due either to excessive stimulation, or to a natural, applied to an over-sensitive center.

Dr. Erb next considers neuralgia. He defines it: A disease of the sensory nervous apparatus, the chief and most important symptom of which is pain. He says, no concise or complete definition of the term "neuralgia" can at present be given. The most important and fundamental facts required to make such a definition are wanting. That is to say, we have no precise knowledge of the finer anatomico, pathological changes in the parts, or of the relation of these causes to neuralgia.

The definition he gives, as well as that of many others, defines the meaning of the *term* rather than the disease. The word signifies pain in a nerve, and although Dr. Erb's declaration is true that neuralgia can not be completely defined, authors have, and no doubt will continue, to attempt to define it.

Further on Dr. Erb says, neuralgia must, in the present state of our knowledge, be regarded as a symptom. Who will question it? Pain in a boil is only a symptom. From all that Dr. Erb writes, we infer that he makes a distinction between the sense of touch and of pain, and nowhere do we see this manifest more than in his

consideration at this point of the relation of neuralgia to hyperæsthesia. We have already noticed that he does not consider the views of Schiff as proved, concerning the transmission of pain through the gray matter of the chord, but yet, without giving us a very clear idea of what he does mean, declares that neuralgia and hyperæsthesia are not identical. Romberg includes neuralgia under the head of hyperæsthesia. Dr. Erb would not. There is a difference in the conditions, although we may be unable to clearly define it. Hammond, in his work upon nervous disorders, classes neuralgia as neural hyperæsthesia. What then is the difference between neuralgia and neural hyperæsthesia? In neuralgia, pain is the essence of the disease and exists without external stimulus, In hyperæsthesia, increased excitability exists without pain, provided no irritation affect the preternaturally sensitive nerve. We wish Dr. Erb had given us more extended views upon this point.

Etiology—The author says little of the causes, except that neuralgia may result from injury, and may in many cases be obscure and can only be guessed at. He says it is necessary to distinguish between remote and predisposing and proximate exciting causes. Hammond and other writers enumerate many causes, which, if the condition of the nerve-centers upon which the disease is dependent did not exist, would be inoperative.

Dr. Erb gives nearly four pages to what he considers as *neuropathic predisposition*. He cites Griesinger's definition of the phrase. "A pathological constitution affecting the functional activity of the nervous system by virtue of which those who are thus constituted manifest throughout life the most varied pathological symptoms in regard to sensory, motor, or psychical processes." He says we can not say in what it consists, but must rest satisfied with the fact. This may be hereditary or acquired. Anstie found the disease directly hereditary in 24 out of 100 cases. In 58 it could not be found, while in the remaining 18 he was not informed.

The period of life is considered, and the tables of Valleix, Eulenberg, and the author given. Valleix makes the greatest number in 296 cases between the ages of 20 to 30, i. e., 68; from 30 to 40, 67. Eulenberg in 101 cases places the highest number at 30 to 40 years, while Erb, at 20 to 30, the same as Valleix.

As to the pathological anatomy, he says: The pathology is extremely obscure. * * * The conclusion is therefore inevitable that *neuralgia is something essentially different from the sensory impressions caused by the immediate action of stimuli to the nerves*. He considers the views of Anstie, Benedict, Niemeyer, and Eulenberg. "Symptomatology" is well written. In fact, so well and elaborately written that to do it justice we would have to reprint it. Some points, however, we may call attention to. The "*points douloureux*," described by Valleix, are considered better than by any writer we are familiar with. However, the points are not pointed out here, but only in connection with the special form of neuralgia to which they are related. Here we find in one sentence

an illustration of what we said of hyperæsthesia as distinguished from neuralgia. Care should therefore be taken not to confound the coincident hyperæsthesia of the skin over the painful points with the pain caused by pressure upon them. There is also anæsthesia, or loss of sensibility of the skin, in the tract of the nerve. Turek, in 1850, described these phenomena of hyperæsthesia and anæsthesia, and found anæsthesia of the skin to be associated with hyperæsthesia of subcutaneous tissue. Trousseau, Traube, Anstie, and Nothnagel describe the phenomena, the last most minutely of all. Dr. Erb accords with Nothnagel that this is due to the pain. "The pain itself occasions the variations of the cutaneous sensibility, including both the hyperæsthesia and the anæsthesia." It does not explain it, however, to attribute it to the pain, or show how it results.

Among other points considered are *motor phenomena* and *direct motor disturbances*. All possible grades of motor disturbance may be observed from spasms and convulsions to paralysis. He does not believe reflex paralysis follows external neuralgia. Vaso motor, secretory phenomena, trophic, and psychical symptoms come in for their share of attention.

Diagnosis—One would suppose if pain is the all essential feature of neuralgia it would be little trouble to diagnose a case. Yet our author lays down the following as "essential and characteristic symptoms of neuralgia:"

1. That the pain is limited to a definite nerve path, either trunk, branch, or area of distribution, and that it is usually confined to one side.

2. That the pain is, without any obvious reason, either intermitting, or, at least, distinctly remitting in character.

3. That the pain presents very peculiar characters, and is extraordinarily acute.

4. That there are certain spots in the course of the nerve, or in the area of its distribution, that are very sensitive to pressure. (*Points douloureux*.)

5. That the pain is associated with those sensory, motor, and vaso motor and secretory phenomena which have been already described.

6. That the pain is unaccompanied by any inflammatory or local symptom, or general disturbance of health at all corresponding with the amount of subjective disorder.

He follows with a consideration of myalgia, lumbago, etc., to be distinguished from neuralgia, which he will not stop to notice.

Special forms of neuralgia engage his attention. We can not notice these as they deserve, hence we pass them by. The treatment of neuralgia is a valuable chapter, not only in what it contains, but what it suggests.

Dr. Erb urges first, *prophylactic measures*: Good diet, meat, bread, eggs, and especially milk and fruits, given in connection with cod-liver oil; regular exercise and sufficient sleep should be

had. Anstie says ten hours is not too much. No stimulants of any kind should be taken, either in the form of spirituous liquors or tea or coffee, and this prophylaxis should be assisted by cold bathing. The sexual impulse should be carefully restrained. This he applies not only to those who have not had neuralgia, but to those who have.

The *specific remedial measures* he adopts are divided into three classes: 1. Electricity; 2. Narcotics; 3. Nervine specifics.

Electricity, he says, has been attended with brilliant success. It abolishes the excitability of the sensory nerves, takes away abnormal stimuli, modifies nutrition, allays hyperæmia and inflammation, and lastly, acts as a derivative, and thus fulfills several indications. He prefers the galvanic current.

2. Narcotics (and anæsthesia) are used as palliative means. While we assent to this, we believe that opium in some cases, by doing what he has above attributed to electricity, is curative. Morphia he uses hypodermically in doses from 1-13 to $\frac{1}{2}$ a grain. Atropia he regards as having an anti-neuralgic action, and uses it in doses of 1-132 to 1-22 of a grain. He commends Althaus' combination of morphia $\frac{1}{8}$ and atropia 1-65. He has no confidence in external applications. Hydrate of chloral he regards of little value, unless combined with a narcotic or hypnotic. The nervine specifics he employs are numerous. Arsenic he places first on the list as an anti-malarial agent and nerve tonic. Zinc must be prescribed in large doses to be of service. Bismuth, nitrate of silver, chloride of barium, chloride of gold and sodium, lead and mercury seldom cure. Iron is of undeniable value. Quinine he finds of great service. Strychnia is praised by Anstie, but the author does not state whether he considers it of value or not.

A pill of great value can be used of arsenic, strychnia, or what is better, nux vomica and lactate or hydrocyanate of iron. We use this extensively.

Dr. Erb finds bromide and iodide of potassium of value. Turpentine he commends. Valerian, assafetida, and castoreum, he says may be tried in hysterical cases. Application of cold receives a share of praise, as do derivatives. Extreme measures, as surgical interference, are considered. Amputation should be stricken off the list.

We regret that we can not follow him through the individual nerves. We also omit the neuroses of the special senses.

The next subject discussed is *paralysis in general*. By the term paralysis, he says, is understood the diminution or abolition of the faculty of exciting the normal function of the *active* organs of motion; that is, of the entire motor nervous apparatus and the muscles. He makes three groups: 1. Paralysis from destruction or functional incapacity of the motor central apparatus, i. e., those parts of the cerebrum from whence come volitional impulses; 2. Paralysis from diminution or abolition of conductivity of the motor nerves—peripheric, spinal, and cerebral; 3. Paralysis from abolition of excitability and contractility of muscles.

In the treatment, electricity plays an important part; also, faradization, galvanization, baths, with strychnia internally are his main agents. Special forms of paralysis, neuritis, atrophy of nerves, hypertrophy, etc., complete the volume. We regret we have not space for a more extended review. It is a valuable work, one of the most valuable published upon these subjects. We are sorry the American publisher can not publish this and the next upon nervous disorders in one volume, and sell them separate from the set. They will find a place in the library of every student of these subjects. It may be wise to compel them to buy all of the set to get these, but to us it seems very proper they should be sold singly.

Errata: In the last number we gave the deaths of Longview as 66, when the proper figures were 44. Also, in hastily running over the report of Dr. Stearns, of the Hartford Retreat, we overlooked the fact that the statement of recoveries quoted was also quoted by him from a former report. Our carelessness makes the Doctor claim more than perhaps he would be willing to ask for as a percentage of recoveries.

On Tracheotomy, especially in Relation to Diseases of the Larynx and Trachea. By W. PUGIN THORNTON, Surgeon to the Hospital for Diseases of the Throat, and to the St. Marylebone General Dispensary. Philadelphia: Lindsay and Blakiston. For sale by Robert Clarke & Co. Price \$1 75.

The author of this little work begins by narrating briefly the history of the performance of tracheotomy, then giving the anatomy of the parts, following with a description of the instruments and apparatus used in the operation, including the various tubes that are worn by the patient after the operation. Most of them being illustrated by wood-cuts.

The operation is carefully described with the preparatory and after treatment. The dangers that may complicate the operation are pointed out very clearly.

The diseases and injuries requiring tracheotomy are given in the following order: I. Acute œdema of the larynx, Croup, Diphtheria, Chronic laryngitis, Syphilitic laryngitis, Laryngeal phthisis, Carcinoma, Non-malignant growths, Paralysis of the abductors of the vocal cords, Scalds of the larynx, Corrosion of the laryngeal mucous membrane by certain irritant poisons, Poisonous bites inflicted by certain insects about the head and neck, Incised wounds of the throat, Foreign bodies in the air-passages, Rupture of the trachea, Injury to the laryngeal cartilages. II. Goitre, Lymphadenoma, Retro-pharyngeal abscess, Tonsillitis, Epilepsy, Apoplexy, Tetanus, Hydrophobia, Drowning, Hanging, and Suffocation from inspiring noxious gases.

A number of clinical cases are reported in which the operation

was performed, three of them being illustrated by photographs of the post-mortem appearances of the trachea. The author very clearly presents the subject treated, designating the class of cases that are suitable for the operation, and where success may and may not be anticipated.

A Manual of Midwifery. By ALFRED MEADOWS, M. D., London, F. R. C. P., etc. Second American from the Third London Edition, Revised and Enlarged, with one hundred and forty-five illustrations. Philadelphia: Lindsay and Blakiston. For sale by Robert Clarke & Co. Price \$3 25.

The author modestly designates this volume as a "Manual." We do not hesitate saying that it is something more, and that it may very properly be entitled a treatise, as it has been enlarged to a book of 490 pages. While the author has followed the same general plan formed in previous editions, he has added a considerable amount of new matter, including some sixty drawings.

The author very concisely describes the anatomy of the parts involved. Arranging the reproductive functions under two heads, First, those connected with the development of the ovum, and secondly, those connected with the development of the uterus.

The signs and symptoms of pregnancy, duration of pregnancy, and signs of death of the fœtus in utero. Mole and spurious pregnancy are described in succeeding chapters.

In the chapter on uterine gestation, we are surprised that the author makes no reference to the valuable treatise on that subject by the late Dr. Parry.

The chapters devoted to the classification of labors and mechanism of parturition are exceedingly practical and clearly explain the subject. The various conditions necessitating instrumental or other interference, are well illustrated by cuts and defined in the text.

The work is eminently practical and although not so elaborate as some other treatises on this subject, is admirably adapted to the wants of the student and general practitioner.

Studies, Chiefly Clinical, in the Non-Emetic Use of Ipecacuanha; with a Contribution to the Therapeutics of Cholera. By ALFRED A. WOODHULL, M. D., Assistant Surgeon and Brevet Lieutenant, Colonel U. S. Army. Philadelphia: J. B. Lippincott & Co. For sale by Robert Clarke & Co. Price \$2 00.

This little volume the author tells us grew out of special reports made to the Surgeon General of the Army, which were afterward published with additions in the *Atlanta Medical and Surgical*

Journal. Since then material and argument have increased until he felt justified in putting the result of his observations in permanent book form.

The author records in the work a very large number of clinical observations, illustrating his experience in the use of ipecacuanha in a number of serious affections, which were found to illustrate the possession by that drug of peculiar powers that are not generally appreciated.

From numerous experiments, the author has been led to regard ipecacuanha as a nervous stimulant, acting chiefly through the nervous system, and has found it especially useful in the treatment of dysentery, frequently giving the drug to adults in twenty to thirty grain doses. In cholera morbus and cholera infantum, hæmorrhages, and in nervous vomiting, this remedy has been found to act beneficially. In view of what the author conceives to be the therapeutical power of ipecacuanha, and the pathology and general nature of cholera, he proposes this remedy in large, non-emetic doses in the treatment of this disease, advising for a cholera patient already vomiting or purging, or both, a drachm dose of the powder in a very small quantity of fluid, to be repeated as to quantity and interval *pro re nata*. The author drawing the inference "that ipecacuanha suspends the glycogenic function because it acts upon the vaso-motors, through the sympathetic, in directly the reverse manner to that in which traumatic injury or cholera poison is active. The disease paralyzes the nerves and dilates the vessels; the drug stimulates the nerves and contracts the vessels." This work is a valuable contribution to our knowledge of a drug that is in every day use by general practitioners of medicine.

The Preventive Treatment of Calculous Disease and the Use of Solvent Remedies. By SIR HENRY THOMPSON, F. R. C. S., Second Edition. Philadelphia: Lindsay and Blakiston. For sale by Robert Clarke & Co. Price \$1 00.

This little monograph consists of two lectures delivered by the eminent Surgeon, Sir Henry Thompson, at the University College Hospital, London. Revised and issued in convenient book form. They furnish a very complete resume of the present state of knowledge of the important subject treated.

The author recapitulates in a very interesting manner the various remedies that have enjoyed more or less reputation as solvents for urinary calculi, from the days of Pliny to the present time. Nearly all of them are alkaline preparations.

Reviews of the following works will appear in our next issue:

Playfair's System of Midwifery.

Theory and Practice of Medicine. By ROBERTS.

Uterine Version and Flexions. By CUTTER.

MARRIED—On the 30th of August, at the residence of the bride's father, near Macksburg, Ohio, by Rev. C. H. Gunter, of Caldwell, Ohio: W. A. Hall, M. D., and Miss Della J. Haga, both of Washington County, this State. Dr. Hall has been practising medicine in Bourneville, Ohio, for some time, where they intend making their future home.

Obituary.

Death of Dr. Lyman Wolfe.

The Alumni Association of the Miami Medical College met at the College building yesterday afternoon, to take action on the death of one of their number, the first one residing in the city, since its organization.

Dr. W. H. Wenning was called to the chair, and Dr. William Judkins appointed secretary.

On motion, a committee of six were appointed to draft resolutions, who, before the meeting adjourned, reported the following, which were adopted:

"WHEREAS, Dr. Lyman Wolfe, our fellow Alumni, has been taken from our midst by death, therefore, be it

"*Resolved*, That we have lost in him a faithful associate, a true friend, and that the profession sustains a loss of a most devoted co-worker, one who never shunned an opportunity to lend a helping hand where needed.

"*Resolved*, That he will always remain in our memory as a man of indomitable spirit, and as being successful in all his undertakings, and as a credit to his Alma Mater.

"*Resolved*, That we tender our heartfelt sympathy to his family in their bereavement.

"*Resolved*, That a copy of these resolutions be transmitted to the family of the deceased, and a copy be published in our daily papers and LANCET AND OBSERVER.

Respectfully,

A. D. BENDER, M. D.,

J. L. NEAVE, M. D.,

OTTO FULS, M. D.,

P. A. KECK, M. D.,

THOS. TAGGERT, M. D.,

J. P. GREEN, M. D.,

Committee.

[From September No. Scudder's Med. Journal.]

WM. S. MERRELL & Co., of Cincinnati.—The pharmaceutical preparations of this firm have been approved by the medical profession for a period of nearly thirty years. Their more recent remedies, prepared from *green roots* (the list of which is being constantly enlarged), are meeting with especial favor from physicians of all schools. In addition to the standard Green Tinctures of Gelsemium and Veratrum, which have long been in the hands of the profession, they now offer green tinctures of Aconite, Macrotys, Gossypium (bark of root), Collinsonia, Phytolacca, and many others. Their Fluid Extract of Epilobium Palustre is an invaluable remedy in chronic diarrhoea and dysentery, and should be carefully tested in these diseases.

Most leading wholesale druggists keep the specialties of W. S. M. & Co. in stock; and a general assortment of their Resinoids and Alkaloids, Fluid Extracts, Sugar-coated Pills and Granules, Elixirs, Ethereal Oils, etc., may be obtained in the cities of Chicago, St. Louis, Indianapolis, Cleveland and Pittsburg.

Physicians who prefer to order from wholesale druggists of other cities, should be careful always to specify, "W. S. M. & Co.'s preparations." A complete list and price current of all their preparations has just been published in pamphlet form, which will be sent free to any one, on application to Wm. S. Merrill & Co., No. 5 West Fifth street, Cincinnati.

NEWSPAPERS AT THE CENTENNIAL.

The Special Correspondent of the London Times says it would be difficult to find an apter illustration of the big way in which the Americans do things than that furnished by the "Centennial Newspaper Building," in the Exhibition grounds. Here you may see any one, or, if you like, all of the 8,129 newspapers published regularly in the United States, and see them, one and all, for nothing! You are not only permitted as a favor to see them, but invited, nay, pressed, to confer the favor of entering the building and calling for what paper you like. It is about as cool and agreeable a place—quite apart from its literary attractions—as a visitor to the Exhibition could wish to be offered a chair in. He may at first wonder how, among 8,000 newspapers, among them such mighty sheets as the New York Herald, he is to get at the small, loved print of his home, thousands of miles away, it may be, over the Rocky Mountains. But the management is so simple that, by consulting the catalogue, or even without the aid of the catalogue, any one can at once find whatever paper he wants. They are pigeon-holed on shelves in the alphabetical order of their States or Territories and their towns, the names of which are clearly labelled on the shelves. The proprietors of the Centennial Newspaper Building are advertising agents, the largest in all America—Messrs. G. P. Rowell & Co., of New York. Their enterprise will cost altogether about \$20,000, £4,000, including the building and expenses of "running" it for six months. The 8,000 and odd American newspapers are declared, by the same authority, to exceed "the combined issues of all the other nations of the earth."

THE CINCINNATI
LANCET AND OBSERVER.

J. C. CULBERTSON, M. D., Editor.
T. M. STEVENS, M. D., Ass't. Editor.

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Original Communications.

Art. 1.—Report of a Case of Poisoning, by Tinct. Gelsemium. Treated by the Hypodermic Injection of Morphia.

By GEO. S. COURTRIGHT, M. D., Lithopolis, Ohio.

Read before the Hocking Valley Medical Association, at Bremen, Ohio.
October 3, 1876.

Cases of poisoning by persons wishing to end their existence are usually by one of the preparations of opium, or by some agent that entirely blunts or deadens the intellect as well as the sensibility, and though the result from taking poisons accidentally is not always death, yet it is but seldom that physicians are called in time to render any assistance, and therefore it is more necessary to know what measures to take, for no time can be lost, when called to a case of suspected poisoning.

The great number of agents that may be poisonous to the human system, the imperfection of the tests used to detect many of them, the great variety of symptoms which result from poisons—often resembling those attending natural diseases, the diabolical skill and ingenuity practiced by the criminal in

their administration, all tend to complicate and embarrass the medical man in determining what poisonous agent has been used, if any, and what its effects in a case of alleged poisoning; then there are the idiosyncracies of constitution, and active or latent disease in the system, rendering the exact effect of a poisonous agent in many cases extremely doubtful.

In a certain class of cases we have well known antidotes, and when called soon enough evacuate the stomach, with emetics or the pump. But after a sufficient time has elapsed for the poison to have been absorbed, we must then rely on remedies introduced into the circulation for an antidote to the one taken, and in the "hypodermic syringe" we have the "one thing needful" in such cases.

For a poisonous dose of opium or its preparations, we know that belladonna or its preparation atropia, as an antidote, is now a recognized fact, and *vice versa*.

By consulting the medical literature we find cases reported to substantiate this, where from the history it would seem that it was a hopeless undertaking to attempt to use any measures for relief. But every case should demand our care, and every known remedy should be tried, as well as those whose physiological action would seem to be indicated before giving up the case.

In those poisons where there are no well recognized antidotes, or where it is not known what was taken, we can only use those that have a possible chance of doing good, judging from the condition in which we find the patient, as well as the surroundings of the case.

In a medico-legal view, it often becomes exceedingly interesting to know what was taken and what used as an antidote, as it is sometimes a difficult matter to determine, whether it was the substance first taken or the agents used afterward, as restoratives, that caused the fatal issue. It is always well to bear in mind the physiological action of remedies, when treating cases of suspected poisoning.

On the morning of August the 22d, 1876, at eight o'clock, I was called in haste to see Stephen Bennett, M. D., of Lithopolis, a member of this society, who was reported to be in a critical condition. The doctor has been an active country practitioner, for 26 years; æt., 52 years; height, five feet seven inches; weight, one hundred and sixty pounds. He had been unwell for two or three days, suffering with urticaria, and when he first complained in the morning no notice was taken of him by his family, and no thought given by the family of anything serious being amiss.

I found the doctor sitting on the edge of a lounge, being held up by two persons, with the head falling forward, the chin resting on the breast; respirations slow, not counted at the time; pulse, 98 to 100, and very weak; (temperature not taken at the time.) Face congested; lips of a livid color; the mouth was partially open, and the lower jaw hanging as an almost useless appendage; could move the tongue slightly, but unable to articulate distinctly; interior of mouth and fauces moist; pupils largely dilated and insensible to light; eyes had a fixed stare; sclerotic congested; lids drooping, so that it was necessary to pull them apart to see the eye; intellect seemed clear.

I at once had his head raised up, but it immediately dropped forward again on letting go of it, showing that the parts were paralyzed; when I had it kept thrown well up and back, to allow the air to enter the lungs.

Mrs. B—— told me that when she first noticed the doctor a few minutes before, he was partially sitting up, and had a small bottle containing acetate of morphia in his hand, and that by an effort he articulated the word "poison," and she supposed he had taken an *overdose* of *morphia*, also that he had been at the drug store and must have taken something there. I dispatched a messenger to the drug store to learn what he had taken while there, and word was sent that he had taken while there only *whisky* and *tinct. cinchona*.

From the symptoms I at once decided that it was either *belladonna* or *gelsemium* he had taken, and most probably the latter. First, the mouth was not dry, and there being present paralysis of the lower jaw. Second, there was no rash eruption or redness on the surface, and no paralysis of the lower extremities. Third, there was no delirium or blindness present, and Fourth, the respirations were slow, and the circulation was not as frequent as when the former agent has been taken.

I immediately gave him pulvis ipecacuanha and mustard in as large a quantity as we could get him to swallow, which could only be done by throwing his head back and holding up the lower jaw, and allowing the fluid mixture to come in contact with the fauces, when with an effort he could swallow, but no emesis followed the administration of them; also used friction—with heat, and sinapisms to the extremities and over the stomach.

I very soon found that we could not rely on emetics, as the symptoms were growing worse, and that it was also too late for the stomach pump to do any good, as the system was fully under the influence of the poison and the stomach seemed paralyzed.

I decided to use *morphia* hypodermically, "on the physiological theory, that the dilated pupil in gelsemium poison (caused by paralysis of the third pair) would indicate the use of an agent which would cause contraction of the pupil." I therefore injected over the biceps of the right arm from *one-half* to *three-fourths* of a grain of the *sulphate of morphia* (as near as I could judge without weighing it), and repeated it in *three* minutes (watching the clock which was in the same room) in the same arm, when within *three* minutes I noticed a slight improvement in the breathing, and told them to bare the left arm, when, in *four* minutes from the last, I injected the same amount in it. In from two and one-half to three minutes he partially raised his arm, and with an effort, and by an assistant holding up the lower jaw, he said: "*be spry.*" The pupils were now slightly contracted and the eyes losing their fixed stare, and a very slight use of the eyelids observed. In *four* minutes I again inserted the same amount in the arm, and also gave him *one-half* grain internally. During all this time, and for some thirty minutes afterward, it was necessary to keep the head held up and well back to allow the air to enter the lungs.

Soon after this he vomited, but I could not detect the odor of either whisky, gelsemium, or any other agent, except the ipecac and mustard, in what he threw up. The symptoms were now better. In *six* minutes I again used the *morphia* hypodermically in the left arm, and this time he complained that it *hurt*, showing that sensibility was returning. Up to this time there had been complete insensibility to pain in both arms. The pulse became stronger and less frequent, and one half hour after commencing the use of the *morphia* hypodermically it was 93 per minute. No further medication was used, except one dose of *morphia* was taken internally one hour afterward.

The paralysis gave way gradually, and two hours afterward he was able to give the following account of the accident, viz.: That he had gone down town to the butcher shop, and called at the drug store, on his way home, for some whisky and tinct. cinchona as a tonic, when two bottles were handed him, and it being a little dark in that part of the room, he poured out at least *one to two teaspoonfuls* of what he supposed was the tinct. cinchona, and a little whisky, drank it and started for home, and having about two squares to walk he noticed some difficulty in his sight before he got home, but attributed it to the receding of the eruption of urticaria.

When he reached home he lay down on a lounge, and when called to breakfast sat down at the table, but could not even

pour out the coffee from the cup, and some one helped him, and that his chin dropped down, and it was with difficulty he could keep his head from falling on the table; could not eat, and with difficulty, on account of his head falling forward, walked into the next room and lay down; does not know how long, but realized that he had taken a poisonous dose of some agent, and supposed at the time, from the difficulty in swallowing and confusion of mind, that it was belladonna, but is now fully convinced, from the symptoms and effects under which he suffered, that it was gelsemium, and was trying to take morphia when discovered. Could not see distinctly on account of not being able to open the eyelid, but did not see double. Intellect was not impaired at any time, but was slightly confused, and thought he was going to die *from suffocation* until I had his head thrown back, when he said: "the air rushed into his lungs and relieved him for a time."

There was some delirium or aberration of mind for twenty-four hours, with pulse 90. Respirations regular and 18 per minute, and temperature 101°, which was followed with an expectoration of a thick yellow pus for six or seven days. Had never previously suffered with bronchitis.

On going to the drug store it was found that the bottle containing *tinct. cinchona* and that containing *tinct. gelsemium* were standing side by side, close together, and that containing *belladonna* was on another shelf, some six feet away. From the effects and symptoms there is no doubt, in the minds of all interested, but that the agent he took was the *tinct. gelsemium*.

REMARKS.—As the agent was taken when the stomach was empty, it was almost immediately taken up, and in giving an emetic I gave the preference to mustard, not only to evacuate the stomach of what might be left in it, but also for its stimulating effect upon the nerves supplying that organ.

Had my patient not rallied after the use of the morphia I should have resorted to electricity, and, if necessary, artificial respiration with stimulants. The doctor said: "that had I tried to use the pump, he is satisfied that it would have choked him to death," as it was with great difficulty that enough air passed into the lungs to ward off the impending suffocation.

From all the circumstances connected with the case, it was at least *two* hours from the time the poison was taken until the commencement of the use of the morphia hypodermically.

As stated above, the doctor has been an active practitioner of medicine for 26 years, and has used belladonna and gelsemium constantly, and is well acquainted with the effects and

symptoms of both; but when under the influence of the poison, he at the time thought of belladonna, and being alone, he had taken the bottle of morphia from his pocket case, but could not pour any out, as he could not keep his head up and eyes open enough to see, and when it was mentioned that it was gelsemium he had taken, he at once said "*he knew it was, and not belladonna as he had at first thought.*"

As there are no well recognized antidotes from an overdose of gelsemium laid down in *any work on materia medica* that I have seen, and no mention made of *opium* or its preparations as an *antidote* for gelsemium-poisoning, and as the use of *morphia* hypodermically proved so *successful* in this case, and we have the testimony of an intelligent physician that he felt better after commencing its use, when he thought that he was beyond help—"

I now not only offer it as an antidote for gelsemium poisoning, but give it to the profession as one that can be relied on as confidently as in that of poisoning by belladonna.

I am also aware that *one case* does not always prove a fact, but in this case it being a physician, well acquainted with the action of medicines—who was the patient—should have great weight in its favor.

I will only add that at this date the doctor is in his usual health, and attending to the duties of a large country practice.

Art. 2.—Unity or Duality of Syphilis.

By CHAS. P. KING, M. D., Newark, O.

There are but few diseases either more prevalent or which afford a wider field for the consideration of the pathologist of the present day than the venereal disease or syphilis.

Such gigantic proportions has this disease assumed of late years (permeating, as it has and is, all the various avenues of society), that the attention of the medical world has recently been turned to a more careful consideration of its true nature and importance, never before known in the annals of medical science.

The origin of the disease, as far as known, dates back to a very remote period. This disease is supposed by some writers to have been unknown in Europe, until about the period of

the discovery of America by Columbus. And not a few historians maintain that it was conveyed from the natives of the West Indies to the inhabitants of the Old World by the sailors of Columbus. It is an historical fact, that about that time it broke out with unparalleled virulence in the camps, courts, and brothels, of Spain, Italy, France and England. No country was willing to claim its origin; so the English called it the "French disease," the French, the "Spanish disease."

However widely authors may differ as to the exact time when this disease first made its appearance, we may be safe in asserting that this question is still a mooted one, and will in all probability continue to be so for many years to come.

There is good reason to believe, however, that neither Columbus, the Indians, nor any of the above mentioned nations were the sole originators of this disease. In all probability it has lurked unrecognized and under comparatively innocent forms through all races and ages. Some have imagined that the ancient leprosy of the Bible, so often referred to in the Old Testament, was one of its forms; and others, that it was derived from the glanders of the horse, transplanted into the human economy. These, though seemingly founded on more rational hypotheses, are for the most part but vague and general, and with all our boasted learning of this nineteenth century we are still compelled to admit that the origin of this disease is still a mystery, although its nature and treatment are much better understood than formerly.

The theory which has met with the most favor refers the origin of syphilis to America, whence Columbus in returning from his first voyage landed in Barcelona, in Spain, in 1493, only a year before the appearance of the disease in Italy. There can be no doubt that syphilis existed in the colony founded by Columbus during his second voyage, but whether indigenous to the West Indies or brought there by the Spaniards, is unknown. Washington Irving, in his *Life of Columbus*, says: "Many of the Spaniards suffered also under the torments of a disease hitherto unknown among them, the scourge as was supposed of their licentious intercourse with the Indian females; but the origin of which, whether American or European, has been and is still a subject of great dispute." That which should next concern us as pathologists of to-day, is not so much the origin as the true nature of the disease itself.

During the last quarter of a century the study of syphilis has undergone a complete revolution, and the new doctrines, as advocated by Bassereau and other leading pathologists,

have been adopted by even those who a few years ago were their most zealous opponents. These advances are due to clinical, experimental, and post mortem examinations. Ricord even, the great champion of the unity of the syphilitic virus, is reported to have said some years ago, "you may rest assured that some day distinct origins will be found for the infecting and non-infecting chancres." And it was from his own school that the new doctrine emanated, for Bassereau was a pupil of his.

It is now conceded by the most advanced syphilologists, that instead of there being but one, there are two kinds of syphilitic poisons; one of which merely infuses local disease, namely, an ulcer, at the point of inoculation, accompanied by, in some cases, an inflammation of the neighboring lymphatic glands, without infecting the general system; while the other always gives rise to constitutional disorder, with extensive derangement of nutrition; in other words, that while one is merely a *local* disease, the other is a *constitutional* disease.

It will be our endeavor in this paper, to give, as nearly as we can, the pathological difference between the two kinds of syphilis, as accepted by the leading "syphilologists" of to-day. And while there are some even eminent in the profession, who still adhere to the old doctrines, the leading pathologists of to-day are in perfect accord with the new doctrines, as advocated by Bassereau of France, Zissel and Reder of Germany, and Bumstead of America.

For a long time gonorrhœa and syphilis were supposed to be dependent upon the same virus or poison, and were believed by many to be identical. It has been shown however by modern pathologists that this doctrine was wholly erroneous, and that the two diseases are as distinct as are scarlet fever and measles, pneumonia and pleurisy.

Hunter taught the doctrine (now known to be an error), that the various forms of syphilis and gonorrhœa depended upon the same virus, that the matter or virus produced in both are of the same kind and has the same properties. He believed that he had established by experiment and observation that the discharge from a gonorrhœa will produce either a gonorrhœa or a chancre, or the constitutional affections of syphilis; and that the matter from a chancre will indifferently give rise to either of these affections.

It had been for a long period a matter of common observation that some venereal ulcers, even when not subjected to treatment, were self-limiting in their action, and confined to the part on which they were situated, or their immediate vi-

cinity; while others were attended with constitutional symptoms, affecting the general system. For example, one person would contract a sore upon the genitals, followed by a suppurating bubo in the groin, but after these were healed there seemed to be no further trouble. While on the other hand another person would contract an ulcer (apparently identical in character,) which would be followed by a train of symptoms extending over a number of years, and perhaps be entailed upon his offspring. Why this could be was a matter not easily explained at first. Some attempted to explain it on the ground of diversity in the constitutions of the two persons. The germ was supposed to be the same in both cases, but that from some peculiarity of constitution the effect produced in the one was different from that produced in the other. While this explanation to a certain extent was sufficient to silence any doubts which *some* might entertain as to the identity of the syphilitic virus, there were others who were unsettled in their convictions, and felt as though it would be a more rational solution of the problem, to admit from the very outset that there were two kinds of syphilitic virus, differing widely, not only in kind, but also in degree.

Hence arose, what has been called the "modern school of syphilologists," discarding the old theories as to the unity of syphilis, and adopting the theory as to its duality.

For convenience of description we will divide our subject into two heads, namely: *The Chancroid, and Chancre or true Syphilis.*

Of the precise nature of the syphilitic poison we are wholly ignorant; we only know it by its properties, or by the effects which it is capable of producing upon the economy, when brought in contact with it. Thus, observation and experience have shown that it always produces a disease similar to itself, the resulting sore or ulcer, yielding a virus in every respect identical with that which furnished it in the first place.

Let us see for a few moments the diagnostic differences between the chancroid and chancre, or true syphilis. First, *the Chancroid*.—Origin, always derived from a chancroid and virulent bubo. Has no period of incubation. It is generally multiple, either from the first or by successive inoculation. An excoriated ulcer, perforating the whole thickness of the skin, or mucous membrane; edges abrupt and well defined, as if cut with a punch, not adhering closely to adjacent tissues; surface flat, but uneven, "worm-eaten," wholly covered with grayish secretion. No induration of base, unless caused by caustic or other irritants, or by simple inflammation, in which

case the engorgement is not circumscribed, shades off into surrounding tissues, and is of temporary duration. *Pathological tendencies*: Secretion copious, and purulent auto-inoculable. Slow in healing, often spreads and takes on phagedenic action. May affect the same person an indefinite number of times. *Prognosis*: Always a local disease and can not infect the system. Specific treatment by mercury and iodine always useless, and in most cases injurious.

Second, *The Chancre, or true Syphilis*.—Origin, always derived from a chancre or true syphilis. Had a period of incubation. *Anatomical characteristics*: Generally single, multiple if at all from the first; rarely, if ever, by successive inoculation. Sometimes an ulcer when its edges are sloping, hard, often elevated, and adhere closely to adjacent tissues. Frequently a superficial erosion, not involving the whole thickness of the skin, or mucous membrane, of a red color, and nearly on a level with the surrounding tissues. Surface hollow or scooped out, smooth, sometimes grayish at center. Induration firm, cartilagenous circumscribed, movable upon tissues beneath. Generally, persistent for a long period. *Pathological tendencies*: Secretion scanty, chiefly serous, inoculable with great difficulty, if at all, upon the patient, or upon any person under the syphilitic diathesis. Less indolent than the chancroid,—one attack affords complete or partial protection against a second. *Prognosis*: A constitutional disease; secondary symptoms, unless prevented or retarded by treatment, declare themselves in about six weeks from the appearance of the sore, and very rarely delay longer than three months. The specific distinction between the “infecting” and “non-infecting” poison, and the characteristic phenomena they induce, are now being recognized at most of the continental schools, as well as those in our own country. Even now, when we see a primary sore upon the genitals and can “watch it,” we are able “to predict” with absolute certainty, at an early period of its development, whether the patient will or will not be the subject of secondary symptoms.

The etymology of the term “syphilis” is unknown; but as now used the term ought to comprise (first) the primary, (second) the successive constitutional symptoms or phenomena, which denote the contamination of the general system. A man may have had a chancre or a suppurating bubo in the groin, and yet remain free from any constitutional taint. Such a case should not be set down as a case of syphilis at all, but simply a case of “venereal ulceration,” with glandular complications. In such a case the gland complication is con-

sequent on the irritation of the sore, and is not specific. The term syphilis should be reserved to designate a much more serious affection, in which the constitution is implicated, and in which the infecting phenomena occur, and if the term "chancre" is used at all, it should be distinctly stated whether it is a soft "non-infecting" chancre or a "hard and infecting one;" otherwise our diagnosis will be incomplete. The modern school of syphilologists recognize specific differences in the mode of development and in the sequence of phenomena which distinguish an "infecting" from a "non-infecting" sore. They have shown by chemical observation, as well as by post mortem examinations, that the sore which eventually contaminates the system commences differently from the sore which does not contaminate the system. The "infecting" sore (the one which contaminates) commences as a papule, pimple, abrasion, fissure, or crack, around which a specific growth of tissue takes place, an induration. A pustule is no essential part of the process, nor is suppuration. They are accidental phenomena, the result of irritation, pressure or laceration, which produce a sore or ulceration; a result always very easily established and maintained in connection with infecting sores as compared with other sores. The period of "incubation" of the "infecting" sore is of vital importance in a diagnostic point of view. A definite period of incubation exists for the "infecting" sore, fixed by experiment as well as by casual observation. Some fix it at twenty-four days, if the poison is from a primary sore; but at twenty-six days, if the poison is from a secondary lesion. Others fix the period of "incubation" at from fourteen to twenty-one days. Sometimes it may be longer, but never beyond six weeks or forty-two days. The infecting sore does not merely remain a local disease; it contaminates the whole system, giving rise to one of the most malignant and most destructive forms of a poisonous disease that affects the human system. At first the glandular structures become involved, and the lymphatics become enlarged in the groins, axillæ and throat; these sometimes take place in about ten or twelve days after the papule, ulcer or chancre has made its appearance, or from four to six weeks after contagion or inoculation by sexual intercourse.

Nutrition becomes defective, the blood is changed,—it becomes anæmic. Emaciation is often rapid, the digestive organs are impaired. The muscles gradually lose their tone and elasticity, and other lesions peculiar to syphilis set in—the skin becomes covered with a peculiar eruption, the hair falls out, the fauces are inflamed and the whole glandular struc-

ture of the system becomes more or less involved. This is designated as the "secondary form" of the disease. In a course of time, if not arrested, the osseous structures take on disease, the bones become affected, and soon the entire osseous structure becomes contaminated with the disease.

These conditions of the system are the result of contamination from the "infecting" sore. On the other hand, a very wide difference is to be found in the sore which does *not* infect the system, known as the "soft suppurating sore"—the chancre, as it has been called by some, or the simple "contagious ulcer of the genitals." The virus has no period of incubation, as has the "infecting" virus. It begins to act from the very moment of its application, and after the formation of a pustule ulceration is generally established by the sixth or eighth day from the time of infection. It is purely a *local* disease, and is generally very soon accompanied by an enlargement of the lymphatic glands, which goes on to suppuration and there *ends*. The general system *never* becomes contaminated. The "soft" chancre is altogether a local sore, and so remains; while thousands of them, says an eminent author, may be multiplied successively at will over the same person's body, especially during the suppurating stage and ulceration, it *never* contaminates the system, but always remains a *local* disease—a separate, distinct disease in itself.

Such are the views as advocated by the leading syphilologists of to-day, as they claim have been demonstrated beyond the possibility of doubt or contradiction, as adduced by them from experimental, clinical and post mortem examinations.

In summing up the positions taken by the advocates of dualism, the following may be considered as embodying the positions by them at the present time: First—Two totally distinct diseases are included under what was recently called syphilis: the one a *local* disease, or contagious ulcer, the "soft chancre," or chancre, the other a constitutional affection—true syphilis. Each disease is dependent upon a distinct virus, and arises only from its kind. Second—The unfailing test of a chancre is its capability of being reproduced indefinitely upon the person bearing it by means of *auto-inoculation*. No other ulcer has this power. Third—The chancre makes its appearance without incubation, in the course of forty-eight hours after inoculation. Its base is usually soft, its edges sharply cut, and its secretion purulent. Its secretion may be absorbed by the lymphatics and conveyed to the nearest ganglion, in which case it will give rise to a virulent bubo, the pus of which is identical with the chancre itself. Fourth—True

syphilis commences (aside from hereditary taint) with a chancre, which makes its appearance at the point of inoculation, after a period of incubation averaging about three weeks. The chancre itself is an indication that infection of the system has already commenced or taken place. Fifth—A chancre appears as an excoriation or an ulcer; its secretion is usually serous, and in the course of a few days its base or edges, or both, usually become indurated. Sixth—The secretion of a chancre can not be inoculated upon the person bearing it, or upon any person under the influence of syphilitic infection, but it will communicate a chancre and syphilis to any person who has never before been infected. Seventh—The nearest ganglion in anatomical connection with a chancre almost invariably and the intervening lymphatics not unfrequently become indurated at the same time as the chancre itself. If suppuration takes place either in the ganglion or lymphatics, it is due to accidental causes, giving rise to a common inflammation, and the pus is simple pus, destitute of specific quality. Eighth—The general symptoms of syphilis appear after a second period of incubation, averaging (from the appearance of the chancre) about six weeks. Ninth—General symptoms follow the same rule as regards communicability as the chancre; that is, they can not be inoculated upon the person bearing them, or upon any person under the influence of syphilis, but they are communicable to second persons.

Such, in fine, are the views as promulgated by the advanced syphilologists of to-day. Whether the positions they have so boldly taken will remain incontrovertible, the future must and will determine. In this age of scientific progress no theories, however plausible they may appear, will be received as conclusive which can not stand the test of scientific investigation. They must stand or fall upon their own merits. And while the "doctrine of the duality of the syphilitic virus" may be considered as still in its infancy, it is our belief that ere another quarter of a century shall have elapsed its claims will be established beyond controversy, even among those who now seem the most zealous opponents. We feel as though we could not close our remarks upon this very interesting subject in any better way than by quoting from our gifted countryman, one of the great champions of dualism at present, the eminent Prof. Bumstead, of New York, who says: "*The possible unity* of the future may show that the chancreoid and syphilis are not absolutely distinct, and that they are remotely dependent upon a common virus. Should this be established, it would be a fact of great scientific importance; it

might lead to the discovery of some preventive against the scourge of syphilis, and in this way prove of incalculable benefit; but otherwise it will affect the daily practice of the surgeon as little as the physician is influenced in his treatment of a case of variola, by the knowledge that "vaccinia" is due to the same poison. There will still be two forms of one disease, which will be as distinct for all practical purposes as if they were radically distinct diseases, and patients affected with venereal ulcers will still have reason to bless the name of Bassereau and the dualism which he established."

Art. 3.—The Physician: His Relation to the Public.

A paper read before the Medical Association of Delaware County, O., May 9, 1876, by WM. McINTIRE, M. D., of Melville, Delaware County, Ohio.

"Honor a physician with the honor due unto him, for the uses which ye may have of him. The skill of the physician shall lift up his head, and in the light of great men he shall be in admiration."—*Bible*.

We see from the foregoing that honor is due our profession from the great need the world has of our calling.

The science of medicine, in its very nature, must be under the influence of the principles of truth, because it is the study of the Deity through his works. Like causes produce like effects. Here, then, we have the law of nature imposing upon the science of medicine a no less boundary than pure truth, and the inquiry is whether the modes of medical investigation are those calculated to reach the truth. Look at comparative anatomy and chemistry, botany and zoology, geology and mineralogy: strip these of what has been contributed to them by physicians, or by those who have had the discipline of a medical education, and a vacuum is left which it would be difficult to fill. A profession such as this rests upon principles far above the dogmas of any master, school, or the supernatural. It has every protection against fallacy which human reason can know, and is alike independent of the eccentricities of brilliant individual genius, and the follies and vices of its unworthy members. Whilst there can be no influence sufficiently extensive to contract the common sense and judgment of all the intellect of any single individual, he may be subjected to honest or dishonest influences, leading to

fallacy or willful deception; hence, the student of medicine learns, as the first step in the search after truth, to place no reliance upon individual authority further than such authority may be sustained by reason and the testimony of established facts. High-sounding names, therefore, when they leave the ground of scientific truth to wander in the regions of fancy are no authority for him, however imposing they may be upon the public. They are not suns, but meteors, and equally un-influential is the clamoring testimony of the applauding crowds who may be dazzled by them. The medical student is too familiar with such things in his profession, and out of it he remembers that Hume, Gibbon, Voltaire and Paine were infidels, and that France dethroned Christianity to set up the goddess of reason, and yet Christianity resumed its place and power, because it is true. Our profession is so noble, philanthropic and humane, that the Master of Peace, Christ, was called the Great Physician, and he chose Luke, as he was termed the beloved physician, as one one of his disciples. The physician is no less in his calling than the power that was given to His disciples for to heal all manner of diseases. The physician can do no more than dispense of his medicine, but Providence alone can bless it. The misapplication or misunderstanding of a single word is often a fruitful source of a train of false ideas, false reasoning and false conclusions. This is the case in regard to the word "system," as used in popular conversation upon medical science, and some consideration will now be presented upon this subject, which should be borne in mind by all desirous of forming a correct judgment upon the profession of medicine. The word "system," as applied to any medical dogma, theory or scheme on the one hand, and to the science of medicine on the other, naturally suggests the idea that the science of medicine is limited to some other and opposing dogma, theory or scheme, to maintain which all its energies are directed; hence, the advocates of any peculiarism are fond of using the terms "new system" and "old system," "new school" and "old school," and by the acknowledgement of such distinctions a whole train of error is founded. In the present state of medical science we feel well assured that the only true system is the absence of all systems. No premature attempt to generalize can have more than a temporary success. Be it ours to seek for light wherever it shall break in to amass knowledge, even if we have to pick it from the mire to draw wisdom from the errors and follies of our rivals, without disdaining to profit by their success, and then other systems will pass away—ours will be permanent, nourished, indeed, to some extent by

the very element which came from their decay—as the eternal oak flourishes and grows green for ages from the decomposition of the transient vegetation, of which generations are springing up and perishing around it. Before a correct and exact mode of investigation was established, all science, morality and religion were wrapped up in the dogmas of the schools and of the fathers, and the men surrendered their minds to captivity and submission. Astronomy and chemistry, so exact, now wandered in the mazes of astrology and alchemy. Visionary theories agitated the profession of medicine, and as there was no law of truth and fact by which to try them, there was no limit to the wildness of unrestrained and imaginative intellect. Taught by such experience, all true science now repudiates systems and theories, or only recognizes them as based upon established facts, and as offering a reasonable supposition or direction for seeking the law of those facts, a conjecture as to the right road formed upon the best existing knowledge, but which conjecture a little further progress may show to be wrong. That investigation which works within a system has too limited and narrow a space to embrace the whole truth; a system can no more contain the whole science of medicine than a part can contain the whole. The adherents of any special system, whether they may be its professors or its disciples and admirers, are incompetent to judge of truth independent of their system—their minds are filled with that and nothing more. Differences of opinion may exist among medical men, however disgraceful to the individual, can not justly be imputed to the profession of medicine. From these circumstances it is evident that none are worthy of confidence as practitioners of medicine, but those who with intellectual capacity for acquirement have had mental training, time and opportunity for studying the vast range of medical science, and that industry, application and sense of moral obligation which insure the fulfillment of the high responsibilities of the profession of medicine; for we read in the Bible in the chapter we first quoted: “The wisdom of a learned man cometh by opportunity of leisure, and he that hath little business shall become wise.” How can he get wisdom that holdeth the plow and that glorieth in the goad that driveth oxen, and is occupied in their labors, and whose talk is of bullocks, or, as we may add, of the breed of bullocks and horses.

A knowledge of the science of medicine is only acquired by close study and diligent application to its whole science. The most successful are those that have been the most studious, and not only those that have been the fortunate in wealth who were

able to buy their profession. Unfortunately, too many of those who look to the physician for medical aid expect him to be the bold controller of nature, instead of her vigilant observer, faithful follower and intelligent assistant. Certain and mechanical results are confidently looked for where true and high science teach that nothing but probabilities could be reached by human skill. Correct scientific or professional knowledge increases those probabilities, but those who study the science of medicine most profoundly know that, while their chances of arresting disease depends upon the extent and variety of their acquirements, nothing attainable by human faculties can give the power of certainty; hence, the conscientious practitioner of medicine is stimulated to add to his professional attainments, and feels it to be a moral duty to go from one acquirement to another. One so enlightened will promise no certain cure for the slightest ailment, for he well knows that under the mysterious agency of vital laws, which are hidden by Providence from the scrutiny of man, death may result from the slightest derangement of the human organism: a scratch may terminate in fatal mortification; tetanus and death may result from the extraction of a tooth; a blow upon the head, ever so trivial, may be the cause of death months afterward; the sting of a wasp or the bite of a spider has been known to terminate life in fifteen minutes. Hence, the well informed physician, although he may be confident of his abilities to select, with knowledge and judgment, among the various remedies with which he may be familiar, and though he may know that they are naturally suited to the case he may be treating, awaits with cautious hope, rather than bold assurance, a result it is not with him to determine. The uncertainty which attends the profession of medicine is applicable to every avocation connected with the laws of nature.

The prudent and intelligent navigator carefully studies the currents which sweep noiselessly through the ocean, and the laws which govern the winds blowing over its surface, and when his vessel is trusted to this vast machinery of nature it is in no ignorance of the force and powers to which it is subjected. He may conduct his vessels through a severe storm, but he can not stop the storm. But the finest ship that ever floated, navigated with all the skill that man's intellect can display, may never reach her port—may be cast a shattered wreck on the shore, or if she be brought into harbor it may be dismantled of rigging, spars and cargo all gone, and yet in this crippled condition, she may be the witness and trophy of more seamanship—science, than if she had made her voyage un-

harméd. Such considerations apply with yet greater force to the art of medicine, which deals not only with nature and its physical law, but with the moral and intellectual constituent in man, and this wonderful combination of average and increasing success, with an ever-existing uncertainty, is a beautiful exhibition of the harmonious laws by which the wisdom of Providence reconciles plain inconsistency. It is an ignorance of, or want of reflection upon these principles which forms the foundation for the prevalence of quackery. And the worst form is that which is practiced in high places. The pretender to medical science meets the popular expectations, by promising infallible remedies for every disease. He partakes of the popular ignorance and popular expectation, and promises infallibility, because he believes infallibility to be a possibility, and ignorant of the laborious process of scientific induction, believes that he can make a hop, skip and a jump at the results of those ideas he professes as certainly as those who reach them by the steps of learning and knowledge. The reasonable expectations of professional usefulness being thus lost sight of, the common sense means, those in which cause and effect bear an apparent relation, are set aside also, and to accomplish wonderful expectations wonderful means are resorted to—means whose mode of action are as incomprehensible as their expected effects are inconsistent with the teachings of nature and the designs of Providence. For all this assumption, ignorance, misconception and error, a fearful retribution is visited upon the community. It pays the penalty of half its life, and consequently half its usefulness and happiness. Some care should be taken that those to whom is intrusted the health and lives of the people shall be qualified for their duties, by suitable education. And not that every ignorant or conceited pretender is permitted to assume the solemn responsibility of managing the health of his fellow citizens, and their lives become the plaything of his blind folly and presumption. Every inhabitant of the State, at some time or other, feels the need of the physician and is interested that he should be learned and skillful. These are the requisites, but how are they to be attained? There are medical schools in the north, the south, the east, and the west, and every year sees these schools sending forth crowds of young men certified as being qualified, learned and skillful in the art of healing, and this after a term of study too short to acquire thoroughly any one of these sciences, which in the aggregate make up the profession of medicine. We would consider five years a very short period to acquire a knowledge of the sciences of medicine, and not approve of the

course, that any young man can go off to study medicine, provided that for two or three winters he or his friends can raise a few hundred dollars, and at the end of this time he comes back a qualified doctor with a diploma in his pocket. No one may here oppose the popular objection, that we would limit the facility for acquiring a knowledge of the profession of medicine to the few whose wealth would enable them to attend expensive schools, remote from their homes. Just the reverse, we would make the estate of medicine a true republic, and only ask of its members if they have the requisite knowledge, not where they got it, whether amid the halls of laboratories and libraries of large cities, or through the inspiration of genius, by the light of a pine torch in a forest cabin—being his own dissector and demonstrator, using an apparatus of his own manufacturing for injecting the arteries, composed of the common anal syringe and a pewter pipe, cast on a wooden or paper mould, one end of which pipe shall fit the nozzle of the syringe and the other go into the artery. Let every city have its medical school, if it may be thought expedient; or, if at least the preparatory studies of the science of medicine were taught in our own common schools, it would be better for the profession, such as the studies of anatomy, physiology and chemistry—if these were a part of the general education, there would be a greater confidence in the profession, and more respect awarded to those who pursue it. The greatest evils the profession of medicine has to contend with are founded in ignorance and prejudice, misrepresented by unworthy members, and unsustained by legislative protection it is thrown upon itself for protection, purification and elevation, and these ends it is now endeavoring to accomplish by voluntary association. The American Medical Association, or national congress of the profession, organized by members from the various medical institutions, from State and county societies, is using its influence to elevate the standard of medical education, and is concentrating the wisdom of the profession in this country upon the investigation of subjects of importance to the health and happiness of the community. It has promulgated for the guidance and government of its members a code of morals defining the duties of medical men to the community and to each other, upon principles of courtesy, honor and Christianity, and preventing the evil results of local rivalries and jealousies. The county societies serve as tribunals or courts to secure the observance of the moral laws of the profession. They also indicate to the people, what medical men are in good repute with their brethren, and under obligations for the conscientious

performance of their duties. These local societies also collect from their vicinity, and from the members who form them, those facts of interest to the public weal which would otherwise be lost, but being contributed to the general store form a vast amount of valuable information ; for it is a mistake, and one fruitful of evil to the community, to regard the medical profession as limited in its duties, to the relief of the sick who may come under the charge of individual members of the profession—it has a far more extended mission than this. To remove the general source of disease, to prevent sickness and suffering, to ascertain the physical and moral sources of disease as they are caused by human depravity, and to indicate the means of their removal, are among the high objects of professional organization, and most nobly has the profession come up to its work. Notwithstanding the vulgar, illiberal and ignorant sneers of those who charge upon medical men a wish for the increase of disease, their profession has been found the most active in the promotion of measures of general health and sanitary reform, although in its labors it has had to contend with popular prejudice, legislative indifference, and opposing interests. The subject bearing upon general and individual health, to which professional attention has been of late actively directed, both in the country and towns, are the water-supply and sewerage of towns, villages or cities, the drainage of the soil, the construction, arrangement and ventilation of dwellings, the investigation of small-pox and other epidemics, the registration of births and deaths, and the temperance reforms. And in the great principle of moral reform, which is before the American people, the prohibition of the manufacturing and vending of intoxicating liquors as a beverage, in short, the arresting of the system of drunkard-making, we find as many physicians in the foremost ranks as we do doctors of divinity, despising not the day of small things or inquiring whether it is popular, but whether it is for the good of the public. The efforts of the profession to arrest the evils of quackery and vending of compound nostrums are correspondent to its whole sanitary actions, although, unfortunately, they are often attributed to interested motives, whereas in truth the evidence goes to show that the more quackery prevails, the more employment for scientific medicine ; and the family medicine, whether a book or a pill, is a fertile source of fees to the family physician. The organization of the profession into county, state and national associations has been efficient, among other matters, in calling the attention of legislators to the necessity of the law for the registration of births, marriages and deaths.

The Ohio Legislature passed a law that physicians should keep a register of births and deaths, and make out a report every three months, and forward the same to the probate judge. The physician received no pay for his labors, but was liable to a fine of ten dollars if he failed to make out the report. The registry law would teach the laws of human life, developed by the natural constitution of our bodies, as they usually exist under the influences that surround them, and how far they may be favorably modified and improved. This can only be done by an accurate knowledge of the facts that are daily recurring among us. These matters are important to the physician to aid him in curing the sick, but far more important to the people to aid them in learning how to live without being sick. The enlarged sphere of duty pertaining to the profession of medicine can only be properly met by professional organization. The people have their most solemn interests concerned in sustaining the organization, and have much reason to suspect those who affect to be independent of it. Medical men who voluntarily refrain from the work, are either behind the age, ignorant of their duties and of what the profession is doing, or else are seeking to hide sinister designs and selfish purposes under an affection of individual independence, just as all do who profess to be independent of the general laws of society. It is an easy mode of getting rid of wholesome obligation and restraint, by assuming to be entirely independent of it, and the people who cheer on such lawless spirits must not complain if they find themselves the victims of lawlessness. An irregular practitioner, who may be running after some new-fangled system, may boast himself of being independent of the county medical society, a society to which he is, of course, entirely ineligible. Men may affect this independence who have an interest in shunning the light of professional investigation, and may claim the privilege of darkness as an independent right, but it can not be awarded them, the interest of society forbid it. If the professional man is weak, he owes it to those committed to his professional charge to have the aid and counsel of his professional brethren, and if he is strong, he owes a portion of his strength to the profession and the good of society. The egotism of individual vanity, judgment and interest must be under subjection to the higher law of Christian, professional and general organization, or Christian, professional and general communities have no security for the conduct of their members. Those who take a correct view of the various difficulties we have suggested as connected with the practice of

medicine, will see that it is not a profession whose paths are through smooth and flowery walks, or on beds of ease. The powers of memory, of observation, and no end to the labor. Those who have studied their profession know the time and labor it costs. The farmer, mechanic, and professional men generally, their labors are from sun to sun, but a physician's work is never done. The medical student may and should have his healthful exercise, but he has no right to amusements or relaxations which distract his thoughts or lessen their vigor. He must have that devotion to philosophy and love of truth which will make the most repulsive investigation agreeable, and keep him days and nights, for much of his life, in damp dissecting-rooms, in hospitals and pestilent dead-houses. If his physical constitution be not good, he will sink beneath the burden of study and exposure, and add to the number of those who are conducted to the grave by consumption and fever before their studies are completed. The granting of the college certificate or diploma is very far from ending the student's labors, it only opens to him another course of education, and more pressing obligations to pursue it. If the diploma has been his object, he is unfit for a profession which imposes upon its members the most sacred obligations to preserve life, and to relieve pain, suffering and sorrow; if his object is merely to make money, to acquire fortune and honor, or to live at ease, he is as unfit for the profession as the profession is for him.

Statistics go to show that among occupations that of medicine is the shortest lived and the least successful in the accumulation of wealth. He must look for his reward to his own breast in the consciousness of being able to do his duty, and in having done it even though misjudged and censured by those whom he has benefitted, and who are incompetent to form any idea of his capabilities, or of the long and anxious labors by which they have been reached. He belongs to a profession which gives him frequent opportunities of practicing upon the command, Do good to those who despitefully use you. He must give up all command of his time, night or day, and be prepared any and every moment for the most harassing emergencies. Even when his active duties may not call him from his home, or bed, he must expect to pass anxious hours and sleepless nights from the responsibility of intricate cases, and the consciousness that the lives and happiness of others are dependent upon his skill and judgment, and yet, after all this, he may find every now and then, one from the tinker, the doggerly-keeper, or to the pulpit advancing the most positive

and dogmatic opinions upon medical subjects in opposition to his own, and recklessly prescribing for patients, which are to him such a source of mental anxiety. We saw a recipe a few days ago from a certain liquor vender of this city, that signed his name with the initial of M. D. "As fools rush in, where angels fear to tread."

After large contributions of gratuitous labor to the poor, the physician must be content to see his services valued by those able to pay him by the standard of day-labor, and may consider himself fortunate, if he is not, when he has done his best, dragged before an ignorant and hostile jury, vilified and traduced by hireling lawyers, and robbed of his means and reputation by the testimony of unprincipled and rival quacks. We care not how high a position the vain pretender may assume to occupy, he should be looked upon as selfish and unprincipled. At the last meeting of the National Medical Association, the subject was discussed of treating all morally depraved conditions of society as disease. We believe that in the violation of the physical laws we suffer physically, and in the violation of the moral law we suffer morally; there should be more efficient sanitary laws enacted, to remove the morally depraved condition of society. It was there suggested that the disposition to commit murder, homicide, or suicide, and we would add covetousness, drunkenness, sectarianism, ambition, and bigotry, all of these result from a diseased condition of society, and ever since the rebellion these evils have increased tenfold, and when church and state were divided and distracted, the medical association has been a unit—North, South, East, and West—seeking after the good of mankind and the happiness of society. A wise man converses with the wicked as a physician with the sick, not to catch the disease, but to cure it. The instability, injustice, and confusion introduced into the public councils, have in truth been the mortal disease under which popular governments have everywhere perished. Sin and disease are synonymous.

Art. 4.—Phosphorus in the Treatment of Chronic Diseases of the Nervous System.

By G. M. SMITH, M. D., North Lewisburgh, Ohio.

For some time past I have been deeply interested in diseases of the nervous system, but, being a country practitioner, my observations have been somewhat limited, yet a few cases of interest have come under my care.

CASE 1.—Miss W., æt. 18; was called to see her in the autumn of 1874; found her suffering from hysterical epilepsy, was having from five to nine fits a day. Menses had been suppressed for sixteen weeks, aside from that I found that there was a depressed condition of the vital energy of the nervous system, a slow and sluggish pulse, a peculiar languor and lassitude, a loss of energy and ambition, a failing of the mental faculties—could not remember distinctly to-day what transpired yesterday—soon tired at quite ordinary exercise, and, as I have found in all cases when there was an asthenic state of the nervous system, a *glimmering of the vision*, a blurring or running together of the letters and words on attempting to read. This symptom I consider almost pathognomonic of a chronic asthenic condition of the nervous system.

After getting the menses established, I began the treatment of the nervous trouble, first, by establishing regular hours in all her daily habits; ordered forty grs. of the bromide of potassium in ten gr. doses every twenty-four hours; gave this alone for some time, when I ordered the pyrophosphate of iron in three gr. doses three times a day, and directly, as she began to take the phosphorus, that glimmering of the vision began to disappear. I continued this treatment without intermission or variation for six months, when I had the satisfaction of discharging my patient, having effected a permanent cure, as she has remained free from any symptoms up to the present time, and expresses herself as feeling perfectly well. In this case I think we owe much to the phosphorus as a tonic.

CASE 2.—Mr. "C.," a butcher by trade, having his slaughter-house burned, he worked hard in erecting another; was much exposed to the direct rays of the sun while weather-boarding on the south side of the building.

When he presented himself for treatment there was the same peculiar symptoms, all indicative of a depressed vital energy of the nervous system. Here, then, was a slow, sluggish and intermittent pulse, a feeling of tightness across the chest, with an inability at times of getting a full breath, some tenderness along the spine. I regarded this case as one of partial sun-stroke.

In my treatment I ordered alcoholic stimulants, practiced dry cupping along the spine, until the tenderness was removed; gave the bromide of potassium and the pyrophosphate of iron. I forgot to mention in this case that there was glimmering of the vision, which began to disappear upon the administration of the phosphorus. Under this treatment he improved, and was discharged as cured in the course of six or seven months.

CASE 3.—Mr. R——, æt. 20; farmer; presented himself for treatment in the fall of 1875; had all the symptoms of case second, the difficult breathing, however, being now troublesome; was then taking medicine for chronic bronchitis, which he supposed he had. There was in this case, as in the preceding one, glimmering of the vision. The treatment and result was the same as in case second.

The cause in this case was an exposure to the heat of the sun while weeding corn upon an extremely hot day in the month of July, 1872.

CASE 4.—Mr. H——, æt. 30; day laborer; now under treatment. Has all the symptoms of the two last cases; the same glimmering of the vision. In the treatment of this case I am giving the fld. ext. of ergot, together with bromide of potassium and phosphorus. He is improving rapidly. Cause: hard day's labor in the harvest-field seven years ago.

I regard phosphorus as an invaluable therapeutic agent in this form of nervous diseases, and it seems to have a peculiar action on the optic nerve. In every case when I have given it, it has never failed to relieve that glimmering of the vision. I have withheld all the rest of the remedies, and given it alone, in order to test its effects thoroughly, and as a nerve tonic I consider it invaluable.

Dr. Radcliffe says: "I ask myself, whether the fact set forth in the preceding table * * * that phosphorus is present in nerve tissue, and that the amount of this ingredient seems to have some direct relation to the activity of the nervous function, being as much as two per cent. in adult life and below one per cent. in infants and idiots, might not show that phosphorus is required by a weak, nervous system as much, perhaps, as iron, in cases where there is a deficiency of red corpuscles in the blood."

We answer in the affirmative, and am willing to rely upon it and trust to its efficacy as a nerve tonic.

Art. 5.—Traumatic Keratitis.

By W. R. AMICK, M. D., Cincinnati, Ohio.

Mr. B——, with a few of his associates, was enjoying himself on the eve of the fourth of July, by firing a pistol. Accidently he was shot in the face, the weapon being loaded with powder and paper. His face was completely besprinkled

with the powder-grains, some of which were deeply imbedded in the integument. Both lids of both eyes were tolerably thickly studded with the "little black particles," but the lids of the left eye received more than those of the right. The left eye began to inflame the next day, when he was directed to make some emollient application. This did not relieve the trouble, and the second day after the accident he presented himself for treatment.

The lids of the left eye were swollen and painful. The conjunctiva was considerable injected. Pain in and around the eyes, with marked photophobia and lachrymation. There was considerable circumcorneal injection. Scattered over the cornea a number of black specks were seen, which, on account of the condition of his face, and the history of the case, it was not difficult to tell what caused them. Some of the particles of powder were small and deeply embedded, while the larger ones were exposed above the surface, and the lids rubbing over them, no doubt, had something to do in causing the congestion of the conjunctiva. Light was very painful, and when the eye was exposed to it for the purpose of an examination, the tears ran down over the cheek very freely.

The powder-grains in the cornea were foreign bodies, and the treatment consisted first in their removal, and then allaying the inflammation. As there were a number of grains, and the cornea a very sensitive organ, we suggested the use of an anæsthetic, as it would be not only a little tedious, but a painful operation. The patient was not willing to take anything, so we proceeded to remove the powder, grain at a time. At first it was difficult for him to have the spud touch the cornea, but in a few moments he appeared not to mind it, and it was no trouble to keep the eyelids open without a speculum, and prevent the rotation of the eyeball by a little pressure with the finger. Grain after grain was removed by passing the spud down at one side and then in behind the particles, lifting them out. But the trouble was not so great in removing the solid particle as it was that portion of it which had become softened; but a small stream of water from one of Auel's syringes washed out the softened portion very nicely. A little rest was allowed the patient between the grains, although he did his part admirably well. After the particles had been removed, a solution of atropine was used every two hours. On the following day all of the symptoms were improved, and a wide dilatation of the iris procured. The atropine was continued, using it three times a day. At the end of a week the circumcorneal injection had nearly disappeared, and there

was nothing observable about the cornea except the interruption to the reflection of light, marking the location of some of the larger powder-grains. Two weeks from the receipt of the injury he was well. There were no opacities left in the cornea, but a couple of little black spots showed that a portion of the softened grains had not been removed.

One thing was noticed in this case, *i. e.*, that after the first grain had been removed, the sensibility of the cornea appeared to diminish. The removal of the first particle apparently caused more pain than all the rest, and he appeared to gain control over the eye, so that it was not difficult to prevent it rotating.

There is, evidently, a marked difference in the sensibility of the cornea in different individuals. Some time ago we had occasion to remove a piece of steel from the cornea of a machinist. He did not appear to mind the touching of the cornea with the point of an instrument much more than an *ordinary man* would the pricking of the integument.

To show this difference of sensibility of the cornea, we will contrast the last case with that of Dr. W——, of this city, who had a little cinder slightly embedded in the cornea of the right eye. Lachrymation was profuse, and the blepharospasm caused by photophobia was so great that the eye could scarcely be examined with weak light. It was impossible to do anything without the speculum to keep the lids apart, and then it was extremely difficult to prevent the rotation of the eyeball. The moment that the cornea was touched there would be a spasm of the lids, and an upturned and inward movement of the globe. Small and as superficially located as the cinder was, yet it was some time before we succeeded in controlling the eye sufficiently for to remove the foreign particle.

Art. 6.—Shall the Code of Ethics be Perpetuated?

By G. S. FRANKLIN, A. M., M. D., Chillicothe, O.

Our code of ethics is evidently on the point of becoming a battle-ground of factions for and against its perpetuity. Under such circumstances it is the duty of each side to present its arguments, to appeal to the mass of the medical profession to come over and help them, and, if possible, to carry conviction to the minds of the majority, whose votes shall decide the vexed question. I wish to contribute all that lies in my feeble power

to the continued establishment of what I consider a good law for the government of the medical profession.

In May, 1847, the American Medical Association after due deliberation adopted the code as it now stands. Since then every city society, every county society, every state society that wished to become auxilliary to the American Medical Association have likewise adopted it as their rule of action. For nearly thirty years the vast majority of the regular medical profession have subscribed to their appreciation of this code, have endeavored to carry out its precepts, and have uncomplainingly accepted it as measurably perfect. Probably there have always been a few malcontents occupying a position very near or perhaps utterly beyond the dividing line between regular and irregular practitioners. Now, however, in this centennial year of our national existence, when reform is the general watchword of political parties, when the progress of a century is counted up, and when new departures are in order, now comes Dr. Marion Sims, the president of the American Medical Association and gravely asks the assembled wisdom of the American Medical Profession to ignore, to render inoperative—his words can mean nothing else—our organic law, because it has served out its usefulness and is unjust in its demands.

Let us examine the subject carefully—such a statement needs careful attention when emanating from such a source—and see what our conclusions should be.

Dr. Sims' first appeal for the nullification of the code comes from the fact that it discourages proprietary patents, which, in his opinion, should be the reward of inventive powers as well in the medical profession as in other departments of civil life. The language of the code is—"equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine." Shall we ask why it is derogatory? The answers come thick and fast—that a patent inures, often in an exaggerated measure, to the benefit of one man, perhaps not the inventor, as against the interests of the world at large; that for the benefit of the said one man, working through a monopoly of its manufacture, numerous suffering, perhaps poor mortals, must be taxed heavily when they are in need of the patented instrument; that in very rare cases has the inventor spent much money in perfecting his instrument, for our intelligent instrument-makers, with highly creditable readiness, are willing to work up any new invention that presents a shadow of promised usefulness, at their own risk, asking only the first fruits of its sale before active com-

petition reduces its cost; that nine-tenths of all the inventions of surgical instruments are the happy inspiration of a moment, taking no large measure of time for the elaboration of the design; that the invention of a new and valuable instrument pays the happy inventor handsomely in the reputation it gives him (where would Dr. Sims be, had not his valuable inventions raised him aloft to the admiring page of the medical world); and that if physicians sanctioned proprietary patents they would loose all just claim to benevolence, philanthropy, liberality, and would be fairly chargeable with grasping avarice, greedy self-interest, and unworthy malevolence, in wishing to fill their pockets at a heavy expense to suffering humanity. Granted that there are a few cases where it seems hard to deny a poor medical man the reward for his inventions which Dr. Sims pleads for, would it not be better to make some provision in the way of an appeal to the American Medical Association for the required aid, rather than to open the flood-gates of grasping self-interest in the way of allowing patents for surgical instruments and for new medicines reported valuable? I am sure most of the medical fraternity would willingly contribute their assistance in such cases, in preference to paying the indirect tax of a patented article which would afford a monopoly to the patentee for a series of years. If instruments are patented, how can we keep discoverers of new and valuable medicines from claiming the reward of money and time spent in elaborating their discoveries. Neither logically nor justly can we reward the one and disallow the claims of the other. How would the medical fraternity like that state of things?

In a fair review of the subject the conclusion will undoubtedly be that it is better for one man, or for one thousand men, to suffer unrewarded in the interest of humanity than to place a tax on a remedy or an instrument which will delay its prompt adoption, will not allow of fair competition in its manufacture, will deprive many patients of its needful aid, and will nullify our claims as a liberal profession and lovers of humanity.

As to the charge that malicious men make use of the code of ethics as an instrument of oppression and torture—what sensible man can truthfully say this is because of inherent faults of the code? Do not Christians make use of the Bible in the same way? Do not sectarian quarrels and persecutions and martyrdoms claim a defense in the pure word of God? Let Dr. Sims promise that all medical men shall be gentlemen in the highest and broadest sense of that much abused word and this objection will at once fall to the ground.

Does Dr. Sims pretend to say that chlorodyne and other similar remedies are select nostrums within the meaning of the code of ethics? I think that the profession at large will be disposed to take issue with him on this point. If we know the ingredients of any compound medicine, and its properties commend themselves to our judgment, I do not understand that the code forbids me to use it, providing I do not lead my influence to encourage secrecy or the patenting of the article. I have used chlorodyne, following Aitkens' formula, many times, but I do not feel as if I had transgressed the code of ethics. If I had no acquaintance with its composition, it would certainly be rank quackery in me to prescribe it; or, if I knew of a compound which I had proved to be valuable and I refused to let my medical brethren know its component parts, I should be certainly acting a selfish part and contrary to the code, which everywhere inculcates the broadest benevolence to mankind. The same ban that excludes from the use of chlorodyne, would deprive us of the use of at least half the materia medica, on the ground that at some former time they were ingredients of a secret nostrum. In condemning secret nostrums the code teaches us to use nothing whose composition and properties is not well known to us, and warns us against encouraging others in making or using them. Even without this provision of the code, it seems to me no work of an intelligent, conscientious physician to be found prescribing them.

One or two other points that Dr. Sims forgets to mention also need careful consideration. The greatest stumbling-block in the way of a hearty acceptance of the code of ethics, in my opinion, is that it forbids consultation with irregulars. The code defines irregulars as those who believe in and practice an exclusive dogma, rejecting the accumulated experience of the profession. This definition evidently includes Homœopaths, Botanics and Thompsonians, and perhaps others not so prominent in claiming attention from the public. If as regular physicians we are called upon to consult with regular practitioners of these dogmas, we must either declare to the consulter and the patient that the treatment has been based on a delusion, or, we must tacitly or openly acknowledge that everything has been well done. In the former case, we anger the consulter and perhaps the patient by our truthful statement of the case and probably excite an unseemly wrangle; and in the latter, we must stamp with approval the exclusive dogma and its practitioner, admitting that his science and skill are as good as our own. Conscience, dignity and truthfulness draw

us to the former course ; self-interest, love of popularity and laxity of principle advise to the latter. The code by its wise provision secures our truthfulness and dignity, by counseling us not to be swayed by self-interest, not to seek after mere popularity, and not to give up principles that are taught us by an educated judgment and a pure morality. Can an unprejudiced judgment say that to decline such consultations is wrong? There are regular medical men who say this, and who still believe that homœopathy, etc., are false doctrines. They say they are only performing a duty in trying to save human life, whether the consulter be "white or black, male or female, regular or irregular." They throw to the wind the charge that they are fostering false doctrines, that they are teaching the public to believe in a delusion, and that they are sacrificing honor and principle by so doing. Their reply is, it is our duty to save human life. When answered that their responsibility only begins when they are in charge of the case, and that by dismissing the homœopath, etc., the patient can at once have the benefit of their superior skill, they gravely answer, we must save human life. They deny that self-interest has anything to do with the question, in face of the fact that thousands of their medical brethren assert that it alone is responsible for their action. If they claim to be really honest in their belief, I have only to suggest that they decline all consultation fees in such cases. Does any sane man believe that their heterodoxy would continue a year if they adopted such a course? Dr. Sims, and others like him, who occupy prominent positions in the eyes of the medical world as consulting physicians, are especially recommended to try this remedy for their heterodoxy and report their conclusions after a due season of probation. If our great lights in the profession will do this, their example may be a source of all-powerful good, for the result can be nothing else but to sustain the code.

The code also declares that advertisements, etc., are the ordinary practices of quacks, and are highly reprehensible in a regular physician. The quack by these methods calls attention to himself as possessed of superior skill. The unwary are caught in his net through his exaggerated, partial, or false statements, and find out too late that they have been victims in purse and in health to his untruthful advertisements, and his lust for money. The regular physician who can not allow his honest work to speak for itself, but must bolster up his reputation by the aid of the public press, places himself on a par with quacks, and draws down a well-founded suspicion of

interested motives on himself and his profession. In my humble opinion this provision of the code is most excellent, and should be adhered to by every one who desires fair dealing with his fellow men and an honorable rivalry with his medical brethren.

In conclusion, I have only to say that our code seems to me most admirable; that the more I enquire into its provisions, the more am I led to wonder at its broad benevolence to mankind; its extraordinary fitness as a guide for poor, fallible human nature, as embodied in the medical profession, and its inculcation of generous self-denial, in the interests of suffering humanity. I bow in humble reverence to the wisdom, purity and goodness of the men who elaborated it, and earnestly wish that the rising generation of medical men shall be thoroughly taught to uphold it as the palladium of their honor, their dignity, and their honest success in their chosen profession. My vote shall never go toward its abrogation, or even its emasculation, and all the influence I can wield shall be thrown in favor of its perpetuity and its general observance. I call upon all who love the code to speak out boldly, to make their sentiments known, to see that delegates to the American Medical Association be instructed to allow no compromise that weakens its honorable beneficence, and reduces our calling from the rank of a liberal profession to that of a painful trade.

Art. 7.—Education, its Relation to Insanity.

Read before the Alumni Association, Miami Medical College, Sept. 28, 1876, by W. H. DEWITT, M. D., Physician at Longview Asylum, Carthage, Ohio.

"Take care of the children, and the children will take care of the state," is an old time-worn proverb, replete with wisdom and truth. Train the young minds to *love* liberty, and the time shall be afar off, when freedom shall be bound in anarchy's chains. The first care for the child, should be education, and we need scarcely say, should be, for it will be. If older and wiser heads and hearts are not busy in planting seeds, the young mind will receive an education of some kind, from its surroundings. Education we all know may be true or false, positive or negative, and upon this education is built the fabric of future life. While a positive education may be imparted

by books and set phrases, for the child to learn, too often the whole is marred by the instructor showing by his daily life that however much he may indorse the sentiments he explains so elaborately, yet he does not follow them. His life thus gives an emphatic negation to his positive teaching. That the early training of the child either promotes or retards the physical growth and development of future years, is no more true than that the mental status is also thus largely influenced and governed. That education is also often a factor in producing mental deterioration, if not pure insanity, is also often found true. Education, to be essentially and radically true education, should be the careful training of *all* the powers of the mind, and at the same time training the physical organization, or educating it according to physical laws. Too often do we see a bright, vigorous intellect inhabiting a mere shell of a tenement, when by the proper exercise of their physical, as well as their mental powers, the outer abode of the grand inhabitant might have been worthy of its inmate. This we can only term partial education, mentally educated, but physically a mere infant. Any system of education which develops one faculty of the mind almost exclusively, ignoring the other faculties, is a false education. Too often instructors cultivate memory to the almost exclusion of reasoning, reflection, etc. Day by day memory is strengthened by constantly committing facts, etc., while the reasoning powers, to know *why* these things are truths, lies dormant. The pupil receives these things as truths, but the reasoning faculty receives no healthy stimulus, by exercise of constant questioning. Any system of education developing *one* faculty unduly, which has not for its aim the *free* and *full training* of all the powers of the mind, so that when needed they are skillful workers, is a false education, or at least sadly defective. Every being is the possessor of a double nature. The nature transmitted by his ancestry, we may term his inherited nature—and the heir-loom is oftentimes a fearful gift. The nature he receives or acquires by his daily life and its surroundings, we may term acquired or educated nature. The inherited nature has received much attention from writers on physical and mental development, and too much can hardly be said upon the subject, but while it receives its legitimate portion, the acquired nature may also justly claim a large share of attention—more particularly, as this is the field where the greater good can be done. Thousands of children are thrown into the world inheriting the birthright of a faulty physical organization. Defective from birth, these children have but a meager chance of attaining any physical

greatness; they enter the world with this ban of ancestry upon them, and existence to many of them is only the shadow of the boon it should have been, had they been happily ushered into being under favorable circumstances. But, while this inheritance is theirs, much can be done to ameliorate this condition. Let these faulty ones receive the most careful and judicious attention, let every energy be bent to protect the weak points, and even from these faulty physical developments much good results. By continued exercise the puny arm becomes muscular and brawny, and the amount of advancement toward physical soundness is truly great in very many instances. While the physical is oftentimes thus sadly faulty from birth, being but the reflection of a faulty or diseased ancestry, so also is the higher organization or mental life thus sadly defective, or at least weak. While physical defects are subject to training, and weakness capable of being developed and strengthened, so also is the mental thus oftentimes subordinate to attention. To this training, then, we must look, either for a bettering of the condition or a deterioration. Let the course of training be injudicious, and instead of eradicating the evil seeds, they are nourished and watered and will need only the sun of adverse circumstances to bring forth their own legitimate fruit. On the other hand, if proper care is taken, the want fully recognized, the weak member may be guarded and strengthened, until it will not be the mere tool of circumstances.

Every child has its peculiar impulses, and these impulses are the points that are to be fostered or checked, as the fostering of them may lead it to an established instability of character, that will render the child a mere toy under unfavorable circumstances, but if repressed or checked, may result in a most happy and marked stability of character.

The parents not only transmit the taint, but daily strengthen the birth-gift by an injudicious and foolish rearing when the young and plastic mind is fully susceptible, and the training, or direction given its mental development, becomes the fiat of future years.

Some one, whose name I have forgotten, has written a comment upon the commandment: "Honor thy father and thy mother," in which he claims that another should have been added: "Parents honor *your* children." The honor insisted upon from parents being, honor them first with the birthright of good, sound bodies and minds. That more of this honor could be conveyed if parents would strive to be themselves worthy of honor, is surely a fact. As teachers are the aids of parents in this work of training, our system of education be-

comes a mighty power in producing results. Besides, many parents, to their shame be it said, shake off about two-thirds of their responsibility on the already over-burdened shoulders of the teacher. They expect the teacher to enforce those habits of obedience and self-control which they themselves have signally failed to obtain. Thus, as teachers generally have from thirty to forty children to govern, one mind is expected to originate plans, ways and means to govern this number. The parents find not time to study the peculiar nature of the three or four little ones around them, but the teacher is expected to be an expert, producing a most wonderful system of government, suitable to each particular case, and to have their science of government so complete that that they are ready for any emergency. Teachers say that each school-year they are forced to refuse admittance to children presented as pupils who are under six years of age, whose parents bring them thus early to school merely for the purpose of having them out of the way for the greater part of their waking hours.

This habit of sending little children to school, where they are placed under a restraint too prolonged for their years, is, unfortunately, not confined alone to the poor class of society, where the great question of life is, and it seems must be with them, to live, to get enough to feed and clothe the little ones dependent on them; but, alas, it is as prevalent in the higher walks of life, and in many cases the child, from early infancy, is left to the care of mere hirelings. Now, then, when the child is sent to school to receive the first grand lessons of life, the lessons that should be learned first at home will it receive in school? The first primary lesson of life is obedience, and it would seem as if that were the lesson to be learned at each and every step of life. Obedience to some one, or some principle, follows us until we cease to be mortals, —inhabiting a realm of laws. If the child does not learn this primary lesson, and learn it *well*, it will only partially acquire it in later life. Let him thus early fail to learn obedience to parents, and all those who exercise authority over him, and the good citizen he might have been will be but a miserable pretense, who will not scruple to break the laws of the land. The person who has not acquired the control of his temper is always in greater or less mental disturbance, from his utter inability to look coolly at any subject. Judgment is but feebly developed; passion taking its place, and usurping its seat. They are, as it were, out at sea adrift, contrary winds driving the frail vessel here and there, always

leaving a fearful effect of the storm behind, until at last the bark is a mere wreck. Parents are highly culpable for much of the lack of control and judgment that in many cases is the stepping-stone to insanity. It is injustice to expect any teacher to instill the rudiments of knowledge, and at the same time impress on their neglected children the importance of self-control and obedience. Every neglect of this kind injures the future of the child, by rendering him the less able to meet the many temptations and bear the disappointments of life, and only opens the way for an attack of mental disorder. Now, let the child be received into school, and see the result. Children are naturally restless, desiring to change positions, and this they can not do in a school-room. The open page is dull to him, and the hour, or often more, he must sit before the welcome hour of free motion comes, is too much for him. A child can not fix its mind for any length of time upon one thing, and the whole success of teaching little children is attained when the attention is aroused, and the desired knowledge imparted through the medium of sight and hearing. But as this attention is of short duration, it should be followed by bodily exercise, and again followed by mental activity. There are some defects in our system of education which should be remedied in accord with physiological laws. Our Cincinnati schools are a great honor and credit to our city, and the scholars sent forth are a blessing to the community. But even in this fair system, is there not a defect?

The course of study is fixed, the amount of work for each year assigned, and this work is too often beyond the capacity of the pupil, or rather tends to develop the mental at the expense of the physical. The course provides finely for the mental, but does it not require so much time that the proper physical care is a secondary matter. The work often seems as if assigned, without a proper conception of the capacity of average children to acquire thoroughly, and at the same time have leisure, for thorough physical growth. The mental endowments of children are so varied, that what one acquires with apparent ease, is a cause of severe mental labor with others. What to one mind is hard and almost odious, is to another a pleasure, and to expect the same relative proficiency from these different capacities, is looking for more than can oftentimes be obtained. The bright one is encouraged by the approbation of the teacher, while the one who needs special care is denied this needed food, and a feeling of despondency is only added to the already great burden. Just here, is where the instructor needs the greatest discretion and patience—

discretion to see if the poor lesson arises from neglect or dullness, and if the latter, patience to help the child. The task is far from easy, but let him know that he is doing a great work in helping the weak one to prepare for life's battle. The bright child is the one to receive less smiles; explain away the darkness, until the dull child sees the light, and thus the instructor will be a true educator if he draws out the dormant, sluggish powers, and gives them the training, support and direction needful to cope successfully with the subject before him. It may often seem a thankless task, but the teacher can not lift the veil of futurity and see the good his hands have wrought. Mayhap, in a future time, these unwritten deeds of good may shine in a page fairer than earthly pen can write. Anything short of such an effort robs the true teacher of his highest reward. But the teacher may *justly* urge incapacity, under our present *regime*, to meet the demands of his employers, as with such care he can not accomplish the prescribed amount of yearly work—this is the very root of the trouble. It is infinitely better for the education of the mind that the fundamental principles are thoroughly understood, than that the whole book should be studied and but imperfectly comprehended. This wholesale system of pushing is the primary evil in our present course of education; the only defect, we might say, in our otherwise grand system of education. Take our high schools for example, and see how many fail each year in passing from one grade to another, or leave the school entirely. Many of these fail, not from lack of application, but as they are behind the successful ones of their class, they are discouraged, and leave the course unfinished, because of this very feeling. When scholars fail from sheer neglect, of course, this is not the case; but many do fail who have devoted as much energy to their tasks as those who successfully pass the examinations. Such pupils are the ones deserving sympathy. Again, parents and instructors sometimes permit pupils to take the *extremely* pernicious course of doubling, as they term it, or, in other words, accomplishing in one year what is assigned as a two year's work. This wholesale cramming can not but result in great evils, of more or less magnitude, according to the amount of physical strength the pupil may possess at the beginning of his work. While a person of very robust health may not experience at the time any marked evils, yet, in after life, he may pay the penalty of tampering even with such a strong body. To one less happily organized, physically, the over-taxed brain soon manifests itself in a lassitude foreign to the years of the pupil, and

though at the time this feeling may only be that of tiredness and lack of inclination for exertion, soon it will be followed by inability for exertion, either mental or physical, and the seed is sown, and may only await the proper surroundings to develop the full fruit of mental unsoundness. Not only in our common schools, but also in our medical colleges, does this exist. Cases are not found wanting where medical students have become thoroughly deranged from overwork. We are, by far, too prone to neglect our physical health when pursuing our education, thinking to restore tired nature when the end is gained, but the heavy drafts made upon our health are maturing, and will have to be paid at sight. Correct education we have defined as consisting in the equal development of all the powers of the mind, not giving one faculty prominence to the detriment of the others, and combining the physical health as well as mental maturity. No pupil, not having reached the age of maturity, should be allowed to devote more than six hours daily to mental exercise. While immature their powers are just developing, their organization is yet in the formation stage, and exhaustion, from continued mental effort, is baneful. Any period of study producing a feeling of exhaustion, listlessness, and inattention, is too prolonged, and should at once be discontinued. Nature kindly gives us a warning when undue demands are made upon her, but we *too often* rush blindly on, unheedful of her admonitions. Oftentimes parents and teachers urge brilliant children to greater feats of mental greatness, by injudicious encouragement and praise.

There are many children inheriting the seeds of disease, who are unusually bright and intelligent, and this very quickness is but the token of an inward defect, and yet it is lauded and stimulated, when the very thing vital to its well-being is judicious repression. It is a well established principle that every mental act is expending so much nerve-force, and this nerve-force is obtained from the brain cells. As mental activity then implies a decay, that decay must necessarily be followed by repair. The repair of the brain cells must always be equal to the decay, or the fabric declines, and if too much demand is made, not followed by repair, the fabric will decay. This supply for repair can only be furnished when the system sends full supplies of pure blood to the various organs for nutrition. Thus, the mental soundness is largely dependent on the physical status. Abundant and varied exercises should be required of all scholars. Any weariness is a symptom that the system needs rest, and, as a rule, children can not sleep,

eat and exercise too much. Girls particularly need careful attention—physically, they are more delicately organized, and can not cope with boys; but mentally, they often outrun the boys. Not unfrequently, there is an unusual brilliancy in them, making them shine as bright scholars; they manifest intense pleasure in certain studies, and pursue them with great eagerness. This bright, flashing intellect is too often combined with an extremely delicate and sensitive organization. Watch them closely, and you will too often find a most vacillating appetite, to-day eating ravenously, and to-morrow, instead of this, we find a total loss of appetite; they arise, take little, or not any breakfast, and are off to the school-room, where they remain hours without food. This is a symptom of diseased action, and should be recognized, and the pupil removed from school, and perfect rest from mental activity, with plenty of exercise in the open air, insisted upon. Let these symptoms be disregarded; let the precious mind keep up the mental strain, if, indeed, their bodies will bear it, until their school-days are over, and although no symptoms of alarming mental disease is present, yet, in future years, when cares are multiplied, the penalty may be paid, and a home be found in some asylum. Too frequently this has been the case, and the alarmed friends seek vainly for any visible trace of insanity in their ancestry, while the essence of the evil is this wrong system of education they have pursued with their child. This evil bears far more heavily upon girls than boys. Many, *too many*, are delicate, and yet thoroughly ambitious, they sacrifice their physical health to mental superiority. When the brain seems dull, and loath to act, instead of recreation, the pupil applies more time than usual to the task. Here the parent should interfere—the pupil is taxing herself beyond her strength; let her continue, and mental disturbance may be expected. Again, there are times when girls should be particularly guarded, and unless the parent insists on this care, nine out of ten will not observe any care at all. These periods, when rest, or moderate exertion at most, is most needed, pass unnoticed by any change in the usual routine. This is a most wretched practice, and too often the calls of nature for repose are all unheeded, until she speaks so imperatively that we can not refuse to listen. Any course of training which teaches the child to care for his physical welfare and makes him obedient, is a guard for the future. Generally speaking, the greater advance we make in civilization, the more frequently do we find disease of the mind, and I can not but think much of it arises from the injudicious way

in which thousands pursue knowledge. There is nothing in knowledge to give rise to mental trouble, but there is very much in the careless ways of some of its seekers to promote such trouble. "As the twig is bent so is the tree inclined," and if the young and tender mind is led aright, a strong tower of safety, a fortress of self-defense is thus erected around him, and when the cares of life assail him, instead of succumbing to misfortune, he is fortified to baffle with despondency. Mental exertion we have said, is quite as necessary to mental integrity as physical exercise is to physical soundness, and it is only the abuse and irregularity of mental exertion that makes it harmful. Any change in our system of education giving relief to the minds of over-susceptible children should be a welcome one. As the physician is sought in times of distress and illness, he becomes the restorer of the family happiness in many cases, and in many cases by a little judicious care he can become the guardian of their mental health to a very great extent.

In adult life, in this busy nineteenth century, the too heavy demands of business, ignoring as they often do all physical wants, is the prolific source of mental ruin. Our climate is largely answerable for the excitable temperament of our people, and in towns and cities over-stimulation is resorted to, to keep up the unnatural mental strain. The whip of stimulants answer to urge the lagging over-strained powers for a time, but ere long mental activity is at a stand-still. All the influence of the medical fraternity should be united against the pernicious American habit of allowing business to crowd out the care of physical health.

Art. 9.—Treatment of Abortion.

A paper read before the Cincinnati Medical Society, September 19, 1876.
By PHILLIP ZENNER, M. D., Cincinnati, Ohio.

The term abortion is usually applied to the expulsion of the foetus during the first six months of utero-gestation. But its consideration in the different periods of this time is not of the same practical interest to us—for an abortion of the first two months is often no greater manifestation than a slight menorrhagia, and that of the sixth month, and to a less extent of the fifth, assumes more nearly the nature of labor at term,

and is less subject to the more peculiar dangers of abortion retention of placenta, and hemorrhage. Yet, even in these periods, it may prove of serious consequence, for we know even a menorrhagia may become dangerous in its profuseness, and delivery at term is only too frequently attended with both retained placenta and dangerous or fatal hemorrhage.

But in the third and fourth months these dangers are more threatening, for at that time the ovum has become of too large a size to be thrown off very readily, while the anatomical connections of the placenta and uterus are too firm, the contractile power of the latter being yet slight, to allow of its easy expulsion. In this paper, in which the treatment of abortion is only partially discussed, I shall not consider its preventive treatment, confining my remarks almost entirely to that of inevitable abortion.

When in charge of a case of this kind, we must remember two things: First, that it is desirable to have as speedy as possible while complete delivery; second, that any interference will often retard and complicate the result. The first proposition is self-evident, and will not be farther dilated upon; the second is easily understood. During the first three months, the ovum is usually cast off entire, and it is thus the more easily expelled; for the contractile power of the uterus is yet slight, and, while it is sufficient to cast off a mass of the size the entire ovum presents, its effectiveness would be far otherwise were the ovum to be expelled piecemeal. But, now, any rude or improper attempts to remove the ovum could easily result in the rupture of the delicate membranes, and the escape of the foetus, leaving the placenta within the uterine cavity, with all the danger that retention implies. Again, suppose on examination we should find the placenta protruding from the os; an effort to remove it might bring away only the part within the cervix, leaving the remainder within the uterus. In doing this we may have prevented the presenting part from doing a double service—from acting as a tampon to prevent or check hemorrhage, and from acting as an irritant to the uterus, exciting it to cast off the placenta through the passage kept open for it, while now it may only the more firmly hold the placental remains within its closed cavity.

There are two principal dangers in abortion: hemorrhage and septicemia from decomposition of retained placenta. But hemorrhage is the prominent and ever-present danger in the mind of the anxious practitioner. What shall we do to control hemorrhage? If it is not excessive, it may be sufficiently moderated by rest in a dark and cool room, cool drinks, and cold appli-

cations to the abdomen, inside of thighs and vulva. Astrin-gents, internally, may be of benefit in the early months. If these measures are not sufficient, we may resort to applica-tions of ice within the vagina, ergot internally, and the tampon. The two latter are likely to hasten delivery, or to render futile all further efforts at its prevention; so that, while there is still hope of saving the ovum, they must not be used, unless the urgency of the case demands. Yet the tampon does not always necessitate the expulsion of the ovum, for cases are reported where, after its use, hemorrhage has been checked, and, the threatening symptoms subsiding, gestation has pro-ceeded, and woman been delivered at term of living child. The tampon can with all safety be used in the early months, but in the sixth month, while it were not well to positively in-terdict its use in urgent cases, it must be used very cautiously, and only allowed to remain in situ while under the constant observation of the physician. Ergot is not of the same value as in hemorrhage after delivery at full time, for the muscular tissue of the uterus is not so well developed; still, it often proves of undoubted value. The hemorrhage is caused and maintained by the presence of the ovum, or only placenta within the womb, and the great desideratum is its removal. When we should institute special measures for that purpose, we will consider hereafter. The second danger, before men-tioned, is decomposition of retained placenta, and consequent septicemic poisoning. The expulsion of the placenta, when not expelled simultaneously with the fœtus, is generally much longer delayed than in labor at term. Its reten-tion is always fraught with danger; that of hemorrhage, of which we have just spoken, being uppermost, the second danger being present in a limited number of cases. Yet the latter does not frequently occur. Bedford even affirms that decomposition of retained placenta in abortion does not take place. But the opposite has only too often been the experi-ence of the profession. Cazeaux mentions one case under his charge, in which, notwithstanding all the efforts of the attend-ing physicians, a woman succumbed to septicemic poisoning, following abortion, in whom a post mortem revealed a putrid placenta still strongly adherent to the uterine surfaces. Allow me to mention two cases illustrating this trouble, but rather in its incipency. The first came under my observation while *interne* at the Cincinnati Hospital:

Theresa L., age 16, prostitute; admitted August 29th, 1873. She was in the third month of pregnancy, and, on the day be-fore admittance, after criminal efforts for that object, was seized with labor pains, and fœtus was expelled.

On examination, the placenta was found to be protruding slightly through the os.

On Sept. 2d—four days later—an offensive odor began to appear. There had been more or less constant pain. Ergot had been administered, but no progress in delivery of placenta.

On the 3d, there was a very offensive vaginal discharge; patient was seized with severe pain in abdomen, and had fever. At 11 a. m., a large part of putrid placenta was removed with placental forceps. At 5 p. m., there was still severe pain in abdomen, and considerable fever.

On the 5th—next day—the fever had subsided, there was less pain, discharge was less offensive, and from this time on there were no more unpleasant symptoms.

The second case came under my observation a few weeks ago:

On Sept. 4th, I was called to see Mrs. B. She was in the fourth month of pregnancy, and after suffering several days with uterine pain and hemorrhage, was delivered of a dead foetus, on the night of the 2d. The physician in attendance removed a portion of the placenta, but was unable to remove it all. On the morning of the day in which I saw her, she was seized with severe uterine pain, abdomen became enlarged, and she had a high fever. I saw her at 3 p. m. She had a temperature of $104\frac{1}{2}^{\circ}$; pulse, 120; abdomen was swollen, tympanitic, and tender, excessively so, over the uterus. A very offensive odor permeated the room. On vaginal examination, found uterus very tender and internal os firmly contracted. Ordered vaginal injections of warm water—temperature about 110° F.—the injections to continue for about ten minutes, and to be repeated every hour or two. At 10 p. m., the remainder of placenta was expelled, fever had subsided, pains were very much ameliorated, and from this time the patient passed to a speedy convalescence.

In these cases, it is well shown how prompt is the relief of symptoms with the removal of the exciting cause. In the second case the relief was so immediate that it suggests the question, whether the fever was not merely of an irritative and not of a truly septicemic character. Yet, the fact remains, that the removal of the placenta is the important consideration, and so let us consider how far we should institute measures for that object.

Though we may remark, in parenthesis, that the mere fact of retained placenta without unpleasant symptoms need not alarm the physician, for frequently, after many days or weeks, it is cast off without any untoward symptoms having occurred.

In some cases it was even supposed to have been absorbed, and doubtless it is in itself the frequent or sole source of what is usually termed molar pregnancy. But, to proceed, I have already remarked that we must be very careful in our manipulations when the os is dilated and ovum presenting, lest we rupture the membranes, and thus retard instead of hastening delivery. But even in this stage, if there be much hemorrhage we are justified in making cautious efforts to remove the ovum. But later, when the placenta is remaining, and after allowing some lapse of time, the bleeding or decomposition of placenta demand more urgent measures, we may resort to much bolder and more persistent efforts. If the placenta is presenting, we may be able, by means of the finger, to hook it out as it were, or by depressing the uterus with the hand, externally, we may be able to sweep the finger underneath and around the placenta and thus remove it. Playfair, in his recent work, recommends, when the placenta is entirely out of reach, that we should put the patient under the influence of chloroform, then introduce the entire hand within the vagina and the finger within the uterine cavity; or, if cervix is still undilated, to first use sponge-tents. But these latter measures would only be resorted to in urgent cases, and only after the tampon and ergot have been faithfully tried; for it must be remembered that these remedies do not benefit alone by checking hemorrhage, but acting as irritants or excitors of the uterus they stimulate powerfully its contractions. Very frequently, when the tampon has been applied to restrain bleeding, the placenta being apparently still adherent, on the removal of the tampon the contents of the uterus are found to be either partially or completely expelled from its cavity. And even in cases where the retention of the placenta is causing septicemic trouble, the same measures, tampon and ergot—though no bleeding demand them, may produce a like happy result. Yet these alone often fail, and manipulation is demanded.

It sometimes becomes a nice question to decide how far such manipulations should be persisted in, for our efforts may even do more harm than the presence of the placenta. For instance, in the second case reported: when I saw the patient the uterus was so tender, and internal os so firmly contracted, that I feel satisfied any efforts on my part, sufficiently strong to accomplish anything, would have done more harm than the removal of the placenta would have done good. But the decision of this question, however bold and persistent our efforts may be, must be decided by the judgment of the practitioner in each case.

Various instruments have been devised to assist in the removal of the ovum. Of these, the crotchet of Dewees, and the placental forceps of Bond and of Levret have been in most frequent use. Of these instruments and their use I have but little knowledge, though doubtless it would be well to echo the admonition of most obstetrical authorities against a too ready resort to them.

Before closing I wish to refer to only one other procedure, that is, the vaginal injections of warm water. I have seen this referred to by several of the standard works on obstetrics, but it is spoken of as if the placenta was merely to be washed out mechanically. My attention was attracted a few years ago to an article, in a medical journal, an extract from a lecture of Dr. Windelbrand, of Berlin, in which he speaks of warm water injections as an excitator of the irritability of the uterus, causing its contractions, and gave a number of instances in which it readily controlled uterine hemorrhage. The works before referred to speak of these injections as dangerous procedures. As regards the risks in such cases I am unable to speak, but I have before remarked, they speak as though their object was merely to mechanically wash out the uterus, and if so, the injections must be uterine. But in the method spoken of by Dr. Windelbrand I apprehend merely vaginal injections are required, merely a stream against the cervix, so that the above danger, if danger there be, scarcely exists in this case. I have tried the procedure only once, but the result seemed to be so prompt and effectual that in my opinion it justifies further trial.

Proceedings of Societies.

PROCEEDINGS OF THE MEDICAL ASSOCIATION OF DELAWARE COUNTY.

Reported by F. W. MORRISON, M. D., Secretary.

Society met. Dr. C. Welsh, President.

First was a paper by Dr. Hendrixsen, on tumors peculiar to the female organs of generation, more especially the ovary—*cysts and cystoma*. He remarked that the first being dropsy of the Graafian follicle, which represents a so-called retention cyst, and is to be considered in the same group with tubal dropsy; there is a physiological rupture within a closed cyst, in consequence of which the cyst

becomes enlarged. In adults these retention cysts only exceptionally attain any considerable size; they may occur singly, while in other cases the whole ovary becomes, through a repetition of the same process in numerous Graafian follicles, converted into a tolerably large tumor, which represents on section a multilocular cystic appearance. These cysts have a smooth wall and their contents consist of a clear, transparent serum.

The cystoma is to be regarded as a glandular, new formation, with a secondary cystic formation, and arises from the follicles of the ovary. The important changes in the cystoma depends mainly upon two causes: the fusion of many cysts into one (unilocular) and the further development of the cystic wall; their contents are viscid, sometimes rather thin, while in other cases they consist of a gelatinous substance, so thick that it does not escape after the cyst has been laid freely open.

The doctor then exhibited an ovarian cyst, taken from Mrs. H—, aged 70 years, died Sept. 26, 1875; weight of tumor, 14½ lbs. He first saw the deceased during the summer of 1874; she then had no enlargement of the abdomen, but had sore feet, and was partially insane at times. In February, 1875, he first noticed œdema of the limbs, and upon examination subsequently a tumor could be felt just above the pubic bones, about the size of a child's head. July 14th, patient had mania; he at that time gave her morphine; the appetite was usually good, until within ten days of death. On *post mortem* found the pedicle short and would not let the tumor rise into the abdomen; the spleen weighed two ounces. Gall bladder was filled with a calcareous deposit; there were no marked adhesions.

Discussion on the above by Drs. Welch, Hyatt, Hendrixsen and others.

Next in order was a paper read by Dr. McCann, on cholera infantum. Remarks, first, by *Dr. Blymyer*, who believes this an inflammatory disease; there is too much congestion for a non-inflammatory diarrhœa. The characteristic symptoms of a true case: eyes sunk deep in the head, excessive thirst, vomiting and diarrhœa, with a constant demand for cold water, which he would administer freely, and also a wet towel to the abdomen; minute doses of calomel does good, but finds little benefit from opiates and astringents.

Dr. McIntire indorses the paper; does not advise cold applications to the abdomen when there already exists a contracted cuticle; warm fomentations good, and ice internally. In the treatment has used sub. nit. bismuth and chalk; can do as much by diet as anything. When using opium, would give it in the crude form. Have frequently used a combination of rhei, ginger and rochelle salts; the flour ball, sago and arrow-root are good as a diet. External applications often very beneficial. It looks like business to be active in this direction under all circumstances, and inspires confidence in the doctor from both patient and friends. Speaking of

curing diseases—nature cures, and remedies only assist it; when nature is disturbed or obliterated you can not call it back.

Dr. Little—The diet should be simple and nutritious, this constitutes part of successful treatment; raw milk is not good, the caseine being hard to digest; would recommend the flour ball, when properly prepared and scraped down in milk for use; lime water is good to control nausea and vomiting, when there is an irritability of the stomach—it acts as an antacid and also has an astringent effect. Believes in good, strong beef tea as a nutritive, and would also use whisky as a stimulant, but would not give astringents. Aromatic syrup of rhei and chalk are good: the former as a stomachic and laxative, with some astringent effect, the latter to correct acidity. The cause of the disease, irritation in the sympathetic nerve; recovery uncertain; a high degree of temperature a predisposing cause; food an exciting cause. To act on the secretions in certain cases, would combine calomel with rhubarb, but proper diet is highly important—looks upon it as the main thing.

Dr. Landon—Has no confidence in doing anything early; would give stimulants and nutrients—of the former small quantities of brandy, and would gain time by using astringents; to arouse the secretions might give sub. muriate one-tenth grain, and repeat when deemed necessary. The ball of flour is good, but old; prefers corn starch to milk in protracted cases; use acids, as cider; they are also indicated when there is a tendency to relapse. In this disease there is impairment of nutrition and assimilation, and nature can be assisted by stimulants.

Dr. Hendriksen—Thinks the disease a morbid action; first begins in the nervous system, aided by an atmospheric heat at a persistent temperature of 90° —first to the nerve-centers, then to the sympathetic; admits at times blood changes, but neurotic trouble always; compares it to a shock; when there is true cholera infantum, therapeutics does not amount to much. We must keep up the temperature and nourish the patient; astringents do no good, but alteratives on the mucous surfaces are beneficial. When this disease prevails, attention should be paid more to prophylaxis.

Dr. Hyatt—Is inclined to think the disease nervous; at the same time no doubt of blood changes (here referred to true cholera, where the blood becomes thickened from loss of serum); heat has a like influence in producing morbid blood changes, perhaps, through vaso-motor nerves. (Makes a differential diagnosis between cholera infantum and follicular enteritis.) Would give opium in some form, quinine or nux vomica; prefers the latter to arouse and support the nervous system; when the stomach wont retain, gives the medicine hypodermically. At times would use the bromide of ammonia; prefers it to bromide of potash.

Dr. McCann—The chief trouble is not altogether in the nervous system; it affects first the alimentary canal, beginning with a simple diarrhoea, and the case may live a week or two without proving fatal. There are many other causes operating besides the atmos-

phere to produce cholera infantum—as anti-hygienic conditions, indigestible food, dentition, etc. Bottle-fed infants are also more prone to this disease; any agency acting directly upon the mucous membrane, giving rise to irritation, is an exciting cause, but a high temperature is a fruitful agent with others.

Dr. S. C. Dumm—Relates a case of involuntary contractions of the muscles of the neck, the infant throwing the head backward; this was controlled by pouring warm water on the back of the head. Cold water to the head is good, but it acts only beneficially on the external vessels, and does not relieve local congestion within the cranium.

In using opium, prefers dovers powder if retained; opium in some form is his most reliable remedy.

Dr. Constant looks upon this disease, so common to the summer months, as one of the worst we have to treat. The little patients will die under any form of treatment. The trouble is due largely to the nervous system, which in many instances is the cause of the protracted convalescence. Opium is a very necessary remedy; does not approve of cold water to the bowels, advocated by Dr. Blymyer; bismuth, chalk, and other remedies suggested by different members are good at certain stages. Everthing called cholera infantum can not be relied on as being genuine.

Dr. A. W. Dumm spoke of the action of the nervous system through depression from heat, irritation, etc., as being a prolific source of disease in infancy. In this complaint nutrition is at fault and stimulants are of the first importance.

Dr. Potter—Speaking of a physician as saving a patient, is not according to medical ethics. How often it has been said, "If I had been called sooner I could have saved the case, or, if I had been called I could have saved him;" I hope no doctor of this society uses *such language*. Opium has been referred to as not being curative; if it is not, then *no remedy* is curative. The doctor closed by referring to the efficacy of paregoric in curing disease.

Dr. Westbrook observed that enormous discharges are usually accompanied with head symptoms. To equalize the circulation, by applying warmth to the feet and cold applications to the bowels, is good. There is a *hyperæmic* condition of the bowels and a diminished quantity of blood in the extremities.

Dr. Williams—Does not claim to know the cause of this disease; its predisposing cause is not in heat altogether. Food acting as an irritant is one source of precipitation, and in the intestinal canal we find the lesions upon post mortem and here we direct our remedies, to act directly upon the intestinal tract and its contents. As to any reliable mode of treatment, we have none.

Dr. Cummins—Gives first something to act on the secretions—would use calomel, opium and various other remedies referred to when indicated—in some cases stimulants are of first importance; related a case.

Dr. Hess related a case where spasm was controlled by morphine ; looks upon milk diet as good treatment ; uses opiates and calomel when deemed necessary. The disease in his opinion is a blood poison.

PROCEEDINGS OF THE CINCINNATI MEDICAL SOCIETY, September 12th, 1876.

Reported by B. STANTON, M. D., Secretary.

The Society met according to adjournment, *Dr. Comegys* presiding.

Dr. Walker said that on last Friday he was called to see a young man of regular habits, 19 years old, who while engaged in grinding a pair of scissors slightly cut the forefinger of one hand. Cramping of the muscles of the hand commenced immediately. As he turned, the crank of the grindstone struck his arm near the elbow, when the cramp extended over the whole body. He was apparently not a strong man, but during the spasms he developed such great strength that three or four men were required to keep him in bed. On *Dr. W.*'s arrival he administered chloroform, which relieved the spasm temporarily. Chloral and bromide of potassium were then given in large doses, which in some measure controlled the spasms that day. The next morning he was as bad as ever. He would strike and bite his attendants, and attempted to bite his own arm where it had been struck by the crank. He complained of great pain at that point, and of some pain in the abdomen. The spasmodic action was so great, and his attempts to bite so determined, that it became necessary to tie him. Morphia was administered in doses of one-quarter of a grain every half hour, until he had taken $2\frac{3}{4}$ grs. This brought him under control.

On the third day he had some slight attacks, with intervals of quiet and sleep. He is now able to give a clear account of the manner in which he was attacked.

He was conscious most of the time, but was sometimes insensible during the spasms, and sometimes raved like a madman. The temperature was not taken, but the skin did not feel hot, and the pulse did not indicate increased heat. There was some difficulty in passing water. Did not think it was a case of hysteria. The convulsions were of a tetanic character. He thought them due to shock of the nervous system.

Dr. Comegys asked the members about the prevalence of dysentery during the summer, and what treatment they had found most successful.

Dr. Kearney said, very few fatal cases had been reported at the health office.

Dr. Comegys said he had seen several cases in public and private practice. The cases were attended with fever, characteristic bloody mucous stools. Some cases—not much tormina or tenesmus. He had treated them mostly with ipecac, in doses of from five to thirty grains; when given in five grain doses, it was repeated every three hours; the thirty grain doses were given but twice a day, and in capsules. The first dose was preceded or accompanied by a small dose of opium, and counter-irritants applied over the stomach, to prevent emesis. The dose was sometimes rejected, in which case it was repeated. This course of treatment had proved very satisfactory.

Dr. McKenzie asked whether it was epidemic dysentery or simply inflammatory dysentery?

Dr. Comegys said that in one part of the city it seemed to be almost epidemic, but most of the cases he had treated were in the city hospital and were from different parts of the city.

Dr. McKenzie asked whether anything else had been given in these cases.

Dr. Comegys—Nothing else, except in one case, in which mass hydrarg. grs. x was given, which produced a bilious stool, but the dysentery returned and the administration of ipecac was promptly followed by good results.

Dr. McKenzie said he had treated several cases of dysentery; some in the hospital while temporarily in charge of a ward. In hospital practice he has tried ipecac and has been unsuccessful with it in nearly all cases.

Dysentery is a disease tending to recovery, and in many cases opium alone is all that is required, and when such a potent remedy is administered in combination with ipecac, we do not know how much of the good to attribute to the latter remedy.

Dr. C. P. Judkins asked *Dr. McKenzie* whether he uses cathartics in this disease.

Dr. McKenzie gave epsom or rochelle salts every second or third day, to clear out the bowels.

Dr. Walker said it is important to clear the bowels of all irritating substances and then give opiates. The disease generally yields to this treatment. He has not tried the ipecac treatment.

Dr. Stanton said he had treated two cases of dysentery with five grain doses of ipecac and half grain doses of opium, every four to six hours. The treatment has been satisfactory, but whether due to the opium or the ipecac he was unable to say. He thought the combination better than giving either alone.

Dr. Kempton's treatment of dysentery is, first the administration of a cathartic, after which he gives opium gr. j and bismuth grs. x to xv. He had seen good results from this course of treatment.

Dr. Comegys thought opium alone could not be relied upon in inflammation of the mucous lining of the bowels. He does not give it for its curative effect, but to secure a tolerance of the ipecac, which he gave to produce yellow stools. In ten or twelve cases,

some involving the small intestine, and some attended with much tormina and tenesmus, and in some chronic cases he has found the ipecac treatment attended with good results.

He has read in one of the medical journals an account of five cases successfully treated, by a physician near Philadelphia. In some of the cases as much as fifty grains were given at a single dose. The ipecac treatment is not new. It was recommended by Dr. Almy, as much as twenty years ago.

Dr. McKenzie—Although the opium is given for the purpose of securing tolerance of the ipecac, he thought much of the relief due to its administration.

Dr. Epstein differed with *Dr. McKenzie*. Opium sometimes has no effect on the discharges, unless given with ipecac. He thought the good effect due to the combination.

Dr. Walker said irritation leads to inflammation, inflammation to ulceration. He gives the opium not so much to stop the discharges as to allay irritation.

Dr. Kearney asked what had been the experience in dysentery with the saline treatment.

Dr. McKenzie said he used salines to remove accumulations from the bowels.

Dr. C. P. Judkins said he begins the treatment with mass hydrarg., followed in a few hours by sulphate of magnesia.

Dr. Comegys said that to some of his patients epsom salts and tincture of opium were administered before they came under his care, but he discontinued that treatment and substituted ipecac. In some chronic cases, where disorganization of the mucous membrane is threatened, he applies blisters over the abdomen, to assist the capillary circulation.

Dr. Hough.—Eight years ago there was an epidemic of dysentery in and near Lebanon, Ohio—a hot-bed of homœopathy. From statistics of that epidemic it was found that seven and one-third per cent. of the cases treated by regular practitioners were fatal, while of those treated by homœopaths over twenty-seven of the cases were fatal. The treatment adopted by the latter was mainly cold water injections, while that of the former was generally opiates in combination with sub-nitrate of bismuth.

Dr. Culbertson.—May it not be well to inquire whether this is not a preventable disease? Typhoid fever is now generally so regarded, and why not this, both are enteric diseases, and most likely to prevail in epidemic form in high and mountainous regions, where there is a clay subsoil. He thought dysentery was to some extent produced by the water used, it being more liable to contamination from decomposing vegetable matter, where there is a clay subsoil than where the soil is more largely composed of sand or gravel and is of a porous character. He referred to epidemics of typhoid fever that had prevailed in England, where it was found that those affected were using milk from dairies where the cows were allowed to drink impure water.

Dr. Walker doubted whether there is as close a connection between typhoid fever and dysentery as is sometimes supposed; and whether drainage has as much to do with either disease as is often thought.

Dr. Gassaway, surgeon of the marine corps, being present, was invited to participate in the discussion. He said dysentery is a frequent disease among sailors, especially marine sailors. In New York, his last post of duty before coming here, the most common treatment is with castor oil, sometimes opium, mass. hydrarg., and camphor were given; the disease would not always yield to these remedies. Sailors being frequently anæmic, and the disease often-times neglected for a time, required astringents, and a common prescription was morphia acet., gr. one-fourth, with plumbi acet., grs. ij. The coasting sailors more frequently have colloid discharges than the deep sea sailors. Typhoid fever and dysentery are not at all rare diseases among deep sea sailors, so that drainage or water-supply can have nothing to do with it, as all using the same water would be alike exposed to affection from that cause. In regard to cholera, in a work prepared in the Surgeon General's office, it is claimed that the mineral acids are preventatives and specifics for that disease, and the fact that nitric acid is often found in spring waters may be an explanation of the fact that cholera is not apt to prevail where they are used.

Dr. Zenner reported a case of pleuritis which came under his care four weeks ago; the physical signs were well marked. The disease came on rather insidiously. The fever for some days ranged from 99° to 101° , then for two weeks the average was $99\frac{1}{2}^{\circ}$. For the last week the patient has been regaining his strength and felt pretty well. To-day he was called again, and found very feeble breathing and almost entire absence of vocal fremitus on the affected side. Both sides of the chest measured the same, and both expanded alike in breathing. He was at a loss to account for these facts with the physical signs presented in the case. Adjourned.

The Society met September 19, 1876; *Dr. Comegys*, President, in the chair.

Dr. Holdt said he now had under his care an interesting case bearing somewhat on the subject of fever, which was discussed in the Society before the summer vacation.

The patient, a boy, 16 years old, is well developed, but has been troubled some with scrofulous affections. He has had two severe attacks of catarrh. About three weeks ago a boil made its appearance near the left elbow. It was not, however, more painful than such things usually are, and was not attended with much constitutional disturbance. On Monday, September 4, a gentleman

who was consulted in regard to it saw fit to lance it; this was done with a lance which the boy said was dull and rusty. From that time it became more painful; he became feverish and lost much sleep. Dr. H. first saw him on Saturday, September 9, when the temperature was 107° ; respiration accelerated; there was dullness over the upper portion of left lung, and some bloody expectoration; sensorium not affected. A plunge-bath of 60° to 65° was advised, to be continued ten minutes, and to be repeated whenever the temperature rose to 102° . Not having conveniences for a bath, Dr. H. directed that the patient be wrapped in cloths wrung from water of 52° to 55° . The parents, not fully acquiescing in the treatment, did not use cold water as was ordered.

At seven o'clock the patient took quinine, grs. xxx. The temperature subsided some, but arose before morning to 105° . Bloody sputa continued; not much cough; respiration not bronchial. In the evening, the temperature having risen to 107° , Dr. H. insisted that a bath-tub be procured, which was done. Baths were given every two to four hours; more frequently during the nights, when the fever was highest, than in the forenoons when there was less tendency to fever. For three nights quinine, in thirty-grain doses, was given, and for the three succeeding nights salicylic acid, in drachm doses, was given. After that quinine (3ss) was given every evening.

Local symptoms.—When Dr. H. first saw the patient, the boil was discharging a small quantity of sanious pus. Two incisions were made, which gave exit to some pus, but there was a deeper accumulation near the joints, which, owing to its location, could not be opened, but from which the pus could be forced by gentle pressure. Yeast poultices were applied. Four days later the left foot became red, swollen and painful, and two days after that the glands of the axilla became inflamed—the redness extending to the thorax.

During the course of the disease the tongue was not dry, but red and much coated; the pulse ranged from 120 to 150; bowels regular. He was not delirious at any time.

The treatment from the first was supporting and stimulating. Beef tea, wine whey, egg-nog, etc., were given freely. Brandy was given in large quantities after the first few days, the patient at that time appeared to be sinking. Prognosis at present appears to be favorable.

Absence of any symptoms which could be attributed to the nervous centers, when there was such a high range of temperature, convinced the Dr. of the good effect of quinia, salicylic acid and cold baths in fever. He insisted on the repetition of the baths. Too much has been expected from one or two baths in twenty-four hours. To obtain a full effect they must be repeated as often as the temperature rises to 102° .

Dr. Taylor said he had a case under his care which presented some analogous features.

About three weeks ago a woman was delivered, in the Cincinnati Hospital, by podalic version. Dr. T. took charge of the case the next Saturday. That day she had a chill; was tympanitic; and there was some tenderness over the uterus, which was enlarged and soft. The lochial discharge had almost disappeared, and there was not much secretion of milk. This he regarded as a case of puerperal metritis of moderate severity, presenting no remarkable features.

The pulse, 100 to 110; temperature generally 100° to $101\frac{1}{2}^{\circ}$, only once as high as 103° . The patient gradually failed; typhoid symptoms supervened; there was some retention of urine. After one week the lochia became free and very foetid, so much so that even with the free use of vaginal injections of carbolic acid she could hardly be kept in a tolerable condition.

From the first she had nausea and regurgitation of food. About ten days after confinement the respiration became very rapid (for four days fifty per minute); there was great lividity of the mucous membranes; no cough; no irregularity of breathing. Rude respiration was all that could be made out.

During the last week the uterus and abdomen have improved; the lochia is less offensive; the tympanitis has entirely passed away. There has been no nausea since the first three or four days.

Within the last two days her tongue has become moist and white, instead of red and brown. She answers questions correctly. Temperature at no time in the last three days above 101° , at last observation 99° . Pulse mostly from 96 to 100. The lividity is less to-day. He thought the lung trouble in this case, and in the case reported by Dr. Holdt, was due to the reception of some poisonous matter in the pulmonary circulation.

Why his patient should have had so rapid respiration (fifty per minute), and yet her temperature and pulse be so low, Dr. T. was at a loss to explain. If there had been profound cerebral symptoms, that might be an explanation. There has been marked lividity, and yet no mental disturbance.

The treatment was supporting and stimulant. Beef tea, brandy, etc., given freely. Quin. sulph. from twelve to twenty grains in twenty-four hours was given for its tonic, not for its anti-pyretic effect. For a few days it was combined with morphia.

Dr. Bender said he had had a case similar to the one reported by *Dr. Holdt*.

A brewer was admitted to St. Mary's Hospital for treatment. While *Dr. B.* was examining him he complained of pain in his left shoulder. On examination he found œdema and swelling in the left axilla, the glands enlarged, and a red line extending down the arm. There was dullness over the left lung, slight cough, and some bloody expectoration. About one week before patient had fallen down and received a slight wound on the left wrist. *Dr. B.* thought the inflammation of the axillary glands the result of this injury, and that the pulmonary trouble was metastatic.

The temperature not at any observation lower than 101° ; at one

time as high as $105\frac{3}{4}^{\circ}$. For the febrile condition he ordered baths at 70° , to be continued fifteen minutes, and repeated if the temperature continued high. These directions were not faithfully carried out. Quinine, in scruple doses, was given in the evening. The next day salicylic acid, in fifteen grain doses, was given every hour, and he was frequently sponged in cistern water, about 68° , and ice-bags applied to the head and arm. The tongue, which had been brown and dry, became white and moist.

Egg-nog and beef tea were given freely. He vomited brandy and whiskey whenever they were taken. The sponge baths were continued. On the fourteenth day he became delirious; pulse ran up to 140; the temperature was high. He continued to fail until the sixteenth day, when he died. Dr. B. thought that if the cold plunge-baths could have been continued, he would have stood a better chance of recovery.

No post-mortem permitted.

Dr. Holdt thought, from the symptoms and manner of development, his was a case of infection from the lance used in opening the boil. He thought, when quinine is given for its antipyretic effect it should be given in larger doses than twenty grains. Thirty grains is the least dose that will reduce the temperature. One large dose is better than repeated smaller doses. Forty-five grains, in three doses a day, will not reduce the temperature, but thirty grains in one dose will. The antipyretic effect of salicylic acid is undoubted, if given in drachm doses. It has been tested repeatedly. He thought the antipyretic treatment was not resorted to as often as it should be. Baths of a temperature of 66° to 68° , and in some cases as low as 50° , ought to be resorted to and persevered in, repeated every hour if necessary to keep down the temperature. He said he had never before seen so high a temperature (105° to 107°); as was present in the case reported by him, continue for so long a time without cerebral trouble.

Dr. Bender thought thirty-grain doses of quinine not sufficient, unless the cold baths were used at the same time. He had more faith in the cold water than in the quinine alone. He thought salicylic acid a valuable antipyretic.

Dr. Holdt.—Cold water is an antithermic, quinine an antipyretic; the first withdraws heat, the last prevents its reproduction.

Dr. Comegys thought this an important question, and the discussion we had had a valuable one. The treatment that has been indicated in these cases is such as we should resort to every day, *i. e.*, cold baths frequently repeated, and antipyretics to prevent the generation of fever. In some of the bowel-diseases of children cold baths are invaluable. He thought nearly every case of enterocolitis might be saved by such treatment. In the absence of conveniences for plunge baths, the patient might be wrapped in sheets wrung from ice-water. When the temperature rises to 101° or 102° , repeat the bath. In the cases of children he sometimes puts them in a bath at 94° , and gradually reduces the temperature.

We should not forget the use of alcohol in these cases of high temperature. He thought he had seen quite decided antipyretic effect from twenty-grain doses of quinine, and he thought that drachm doses of salicylic acid were not often necessary. Smaller doses are sufficiently antipyretic. Adjourned.

The Cincinnati Medical Society met September 26, 1876; the President, Dr. Comegys, in the chair. The minutes of the preceding meeting were read.

Dr. Rowe read the following paper on "Cold as a Therapeutical Agent:"

MR. PRESIDENT AND GENTLEMEN—At previous meetings of this Society your attention has been called in a very interesting and practical manner to the effect of cold, chiefly in the form of baths, as a remedy for certain modified diseased conditions of the system, more especially however as an antipyretic in fevers—some symptomatic, others essential. I propose this evening, for a few moments, to call your further attention to this subject, and to add testimony to the good effects of cold, judiciously applied under proper circumstances, not only as a febrifuge but as an anodyne, founded upon some experience in private practice, but more especially in public institutions in and around this city, where for various reasons this plan of treatment can be more effectually carried out.

Perhaps in no form of fever has cold been more frequently used and its effects become more plainly manifest than in the treatment of scarlatina. During the winter and spring of 1874-75, when scarlatina prevailed almost as an epidemic, about fifty cases came under my care in one of the public institutions for children, in the north-western part of the city. For our purpose it would be unnecessary to mention cases in particular, in regard to the type of the disease. Most of the cases were of moderate severity; in some cases, it is true, symptoms pertaining to the nervous system predominated, in others the disease seemed to expend itself upon the pharynx, in others upon the skin, while in others, and for the most part, there was a general systemic disturbance, accompanied by high temperature, with great frequency and feebleness of the heart's action; but one was in character what is generally termed malignant, this passed away in a few hours' time, without my having seen it. The further consideration of these cases in regard to the symptoms and course we pass by, as it has no special interest in connection with our subject, but as to the treatment. While it is perhaps the generally accepted opinion, concerning scarlatina, that it is self-limited and the treatment is but symptomatic and not markedly influenced by internal medication. Whether that has

been proven or not, it is enough for us here to consider the effect of cold as a factor in the treatment of the cases referred to, and from that draw some inference as to its effect as a remedial or palliative agent. In all the cases referred to, the treatment was especially by repeated applications of cold water, together with chlorate potass. and iron, etc., applications of bacon, etc.; but the main reliance was upon frequently repeated sponging of the body, which was faithfully carried out, its effect was always for good; under its use the burning and itching of the inflamed skin was in some cases removed, in other cases modified. The fluxion to the skin was not in any way interfered with in those cases where the eruption was already abundant, and in other cases where it was slow to appear, it seemed, whatever its appearance, due probably to the fact that in fevers the cold application is followed by relaxation of the contracted capillaries of the surface; its effect upon the nervous system was as a sedative, oftentimes being followed by refreshing sleep, in the place of restlessness, pain and headache before. Its good effect upon the fever was to afford personal relief, by marked diminution in the temperature, and, as a result, increased cardiac strength and diminished frequency, together with a favorable change in those disturbances of the system dependent upon a high temperature. As to the affection of the mucous membrane, other remedies having been used, I am unable to say positively as to its effect; but if not relieved, it was in no case, I think, aggravated. One point to me of interest and worthy of consideration, I think, was the almost complete absence of nephritic symptoms in the great majority of these cases. While, occasionally, albumen was found in the urine, in no case I think was there dropsy or anasarca. Whether this was a result of relieving the skin, or would have been so without using the cold, I am unable to say; but it impresses itself upon my mind when considering similar cases, which were followed by these renal changes, which I attended outside, where the water treatment was not so well carried out. And I would further add, that the other common sequellæ of scarlatina, with the exception of a case of pulmonary affection—as rheumatism, glandular swellings were almost entirely wanting. Thus we see clearly demonstrated, in the course as well as the result of these cases, the markedly palliative, if not the prophylactic and curative power of this agent.

Turning our attention now, for the time, from this form of disease, we will consider its use in derangement of the digestive system, especially of the intestines. While attending the Foundling Hospital, under the charge of the Sisters of Charity, near Avondale, during the year, and especially during the summer months, entero-colitis was very common.

Without referring to these cases in detail, I would mention that a common mode of treating these patients, besides certain remedies, was to remove the clothing, hold them in a bath-tub and pour from one to two gallons of water, fresh from the cistern, over the

head and body, according to the plan spoken of by Prof. Comegys. The result was always very satisfactory; the fever was diminished, as shown by the general condition of the child, and that heat had passed from the body was conclusively shown by the very marked change in the temperature of the water of the tub. The bath was frequently followed by refreshing sleep and rest, together with diminution of the intestinal discharges. I would remark in passing, that if the mortality in these institutions depended upon intestinal derangements, it would be very much modified by this plan of treatment; unfortunately however, the true cause is not amenable to treatment.

In regard to inflammations of other parts of the body, cold can be used with as much freedom and the same benefit. Since our last meeting, I have made use of it in two cases of pneumonia, in children, having it repeated every three hours, in connection with the other treatment. In one case, which was especially severe, I used the bath myself, and found after the child had been placed in bed that the thermometer indicated a fall of two full degrees.

Incidentally, before leaving the subject, I would like to call your attention to a case of aqua-puncture, which came under my observation. I had been attending a lady, who was suffering from severe facial neuralgia, to whom nothing gave relief but hypodermic injection of morphia, which I used a number of times. She was soon relieved. Some time after, having severe pain in the head, she insisted upon the attendant repeating the morphia injection; she fearing to do so upon her own responsibility, armed the syringe with pure water, disguised the fact that the morphia had been omitted, and injected it into the arm. The relief was as marked and speedy as before. That in this case there was acute suffering followed by relief is certain; why such should be the case is not so easily explained. Although several theories are advanced in relation to a similar case of sciatica so treated, given in the last number of *Braithwaite*; one being, that the anodyne influence is the result of the pressure of the fluid on the peripheral extremities of the painful nerve, and thus brings about their paralysis. This is not satisfactory. Another is, that local irritation causes central excitement, so as to dull the perception of the sensorium to lessen pain. Another is, that it is mental. But a true explanation is wanting.

Thus, in conclusion, having seen the effects of cold in the treatment of the cases mentioned, without referring to the various other morbid conditions in which it may be useful, or the various forms in which it may be used, we must conclude that in the judicious use of cold we have a remedy of real worth, valuable as much for the certainty as for the promptness of its action, whether used for its refrigerant, excitant, sedative, astringent or tonic effects.

Dr. Holt said he did not agree with *Dr. R.* as to the method of using water; mere pouring of cold water over the surface does not reduce the temperature. If it is desired to reduce heat markedly,

and prevent its deleterious effect on the system, we should not be content with mere ablutions, but use cold baths. Used in this way it is much more effective. The increase of temperature of the water does not measure the withdrawal of heat from the body.

Dr. Murphy agreed with *Dr. Holdt*, that the mere sponging of the surface does not reduce the heat of the interior of the body. *Liebermeister* has shown that repeated baths are necessary to secure a permanent effect. He thought there was danger in the use of cold baths if not closely watched, and the temperature of the interior of the body noted by introducing the thermometer into the rectum or mouth. The too sudden and too great withdrawal of heat may eventuate in death of the patient. As illustrative of the good effect of aqua-puncture, he mentioned the case of a negro who was admitted to the hospital on account of tertiary syphilis. For several nights the interne gave him hypodermic injections of morphia for the relief of pain. One evening, twenty drops of distilled water were injected instead of the solution of morphia, with the effect of relieving the pain. The next night no injection was given at the usual time, but the patient complained of intense pain, until another injection of water was administered. This procured quiet and rest. In many of these cases the trouble is mental.

Dr. Bender thought the effect of applying cold water to the surface was first to cause contraction of the smaller vessels, then an increase of caliber, resulting in increase of heat.

Dr. Zenner thought the reduction of temperature not the only good effect of the application of cold water. He thought the relief of subjective symptoms—pain, itching, a feeling of intense heat afforded by sponging the surface, productive of good results, as those distressing symptoms made the patient more liable to aggravation of deeper troubles. As to the relief of pain by hypodermic injections, he thought that in many cases pure water might be substituted for the morphia solutions, but only in cases where the morphia injections had been used for a time.

Dr. Holdt said temporary relief of the subjective symptoms might be obtained by sponging with cold water, but not the reduction of heat. Repeated baths are necessary to secure a permanent reduction. Single bath may be followed by an increase of heat.

Dr. Holdt said the case reported by him at the last meeting was apparently improving, but his temperature continues too high (100° to 101°), which gave him some misgivings as to some hidden trouble.

The Cincinnati Medical Society met October 10, 1876; *Dr. Comegys* presiding. The minutes were read.

Dr. Zenner read a paper on "The Treatment of Abortion." See page 1000.

Dr. Culbertson said that he has had several cases of abortion, some of which had given him some trouble.

Four years ago he was called to see a lady who had hemorrhage following an abortion. The ovum was said to have come away entire. A tampon was inserted and aromatic sulph. acid administered, with the effect of speedily arresting the hemorrhage. In ten days the patient was able to be about the house. About the twelfth or thirteenth day she had occasion to go to a distant part of the city, where she was seized with flooding and fainted. She was taken home, placed in a bed, and fainted a second time. The same treatment was resorted to as before, which finally checked the bleeding, but the patient was bedfast for three weeks. He could not discover that any part of the placenta was retained. Last spring the same lady had another abortion. The ovum passed entire before *Dr. C.* saw her. Whenever she attempted to rise up she had hemorrhages, unless there was a tampon in the vagina. She was confined to her bed three months. *Dr. C.* thought the trouble was due to want of tonicities of the uterine walls. She has one child living; has had three abortions.

Dr. Kramer said he had just seen a case of abortion at about the third month. The patient had for several months lived in Louisville, Ky., where she had several attacks of ague, and had had some uterine hemorrhage. For the latter trouble a physician in Louisville prescribed fluid ext. of ergot, which patient was to take whenever hemorrhage occurred. One week ago she had an attack of hemorrhage, for which she took ergot. This morning abortion occurred, and the fœtus presented the appearance of having been dead about one week. *Dr. K.* questioned the propriety of giving ergot in such cases.

Dr. Epstein reported a case of a lady, 35 years old, who had repeated hemorrhages, which were sometimes slight, sometimes severe. The physician in attendance did not suspect pregnancy, but thought the trouble due to the approach of the menopause. *Dr. E.* was called in consultation, made a vaginal examination, found the os patulous, the discharge grumous and very offensive, and suspecting the trouble to be due to the presence of a decomposing fœtus, gradually dilated the os, and removed the offending substance, after which the hemorrhage ceased.

He also reported a case in which hemorrhage recurred six weeks after an abortion, from a portion of the placenta being retained. An injection of persulphate of iron was given, and fl. ext. ergot gtt. xxx given internally every three hours. The injection was repeated on the third day. An entire cure was effected in about four weeks.

Dr. Holdt thought that in the treatment of uterine hemorrhages the cause should be taken into consideration. A hemorrhage occurring after a certain length of time may or may not be from the abortion. It may be from hemorrhagic granulations which sometimes spring up on the site of the placental attachment, or it might

be due to hyperæmic condition of the mucous surfaces. The condition to which the hemorrhage is due has a bearing on the treatment.

He disagreed with Dr. Zenner as to the effect of cold drinks in arresting uterine hemorrhage. He did not think cold water, or even ice, taken into the stomach would have any tendency to arrest the bleeding. He also dissented from the views expressed by some as to the efficacy of astringents internally administered in arresting uterine hemorrhages. He did not believe they had any effect on the extremities of the bleeding vessels. As for ergot, cold injections, and astringents locally used he did not doubt but that they would act favorably.

Dr. Comegys said the difficulty he has encountered in abortions has been in the extraction of the decidua. Frequently in these cases we find the fœtus already discharged, and the decidua stuck in the uterine canal, keeping the patulous ends of the vessels from closing. He makes it his first aim to remove the placenta, and then gives ergot in large doses. He has great confidence in this treatment. If the patient be in an extreme condition he does not hesitate to use injections of persulphate of iron (Monsel's solution). If that is not at hand, he uses ice. He rarely uses a tampon, as the injection meets all the conditions and as it acts as a detergent; there is no danger of septicæmia.

Dr. Taylor concurred with Dr. Comegys as to the propriety of the removal of the membranes. He said authorities are divided as to the necessity of taking away the remains of the ovum: one party believing that owing to the dangers of septicæmia no effort should be spared to remove them; the other, that it is not best to make much effort for their removal, but to take them away if it could be done *conveniently*. He makes reasonable effort to remove them. He never uses a tampon unless the hemorrhage is very great, as it is fraught with danger—is a great source of infection. He never uses a *vaginal* tampon, but plugs the os uteri with a sponge-tent. This expands the os, and the retained blood acts as an irritant to the uterus, causing its contraction and, hence, the expulsion of the retained membranes. He has never had any unpleasant effect from the use of persulphate of iron. He has recently used the tinct. iodine as a styptic. He uses it with water, equal parts of each, injected into the uterus. It does not produce firm clots as the iron does, but is a good styptic.

Dr. Epstein said that if the vaginal tampon is saturated with glycerine and tinct. ferri mur., there will be no decomposition of blood for twenty-four hours, and thus the danger of a tampon might be avoided.

He always prepares his own sponge-tents, by tearing fine sponge into thin pieces, then pressing them under a letter-press. When dry, they are to be coated with wax and rolled into shape.

Dr. Hough said he observed several ago, that when sponge is exposed to strong alcohol it is fixed in whatever shape it is in when

saturated. For the preparation of sponge-tents the sponge can be pressed into a quill or other tube, and then fixed by placing it in alcohol. Sponge thus prepared absorbs moisture more slowly than when prepared in other ways.

He asked what has been the experience of the members in the internal use of astringents, and the local use of antiseptics. Also, whether we can diagnose the presence of foreign matter in the uterus by the discharge alone, whether microscopic appearance or chemical nature of discharge would, aside from general symptoms, throw any light on the subject?

Dr. Taylor said the subject of astringents, internally administered, had been thoroughly discussed at the late session of the International Medical Association. In that discussion there was a great difference of opinion as to their efficacy.

Dr. Culbertson said in some cases of hemorrhagic diathesis he has found internal use of astringents had no effect. In one case, where profuse bleeding followed the application of leeches, neither the internal or local use of astringents did any good. The bleeding only stopped when the patient fainted.

Dr. Zenner thought when there is hemorrhage and the membranes not ruptured it is better not to rupture them, as the large mass will cause more efficient contractions, and when the placenta is protruding from the os uteri it is better not to attempt its forcible removal.

Dr. Taylor said that in abortion, at about the third month, it is better to leave the membranes unruptured, but if the membranes are ruptured and the fœtus discharged, it is better to remove all the decidua that can be reached, as the danger of septicæmia is thereby lessened. If the accident happens after the fifth month and hemorrhage occur, he would rupture the membranes as the best means of arresting it. After this time, the hand can be introduced and the placenta removed. Ergot would now have some effect as an expelling agent—the muscular fiber being developed. In the earlier months it would not cause uterine contraction, but would act as a hæmostatic.

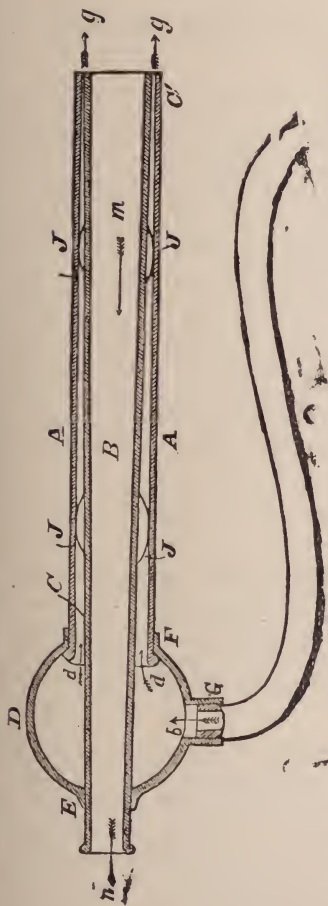
Dr. Comegys said pain is one of the symptoms of abortion. If there is such an amount of uterine contraction as to cause pain, the uterine fiber must be sufficiently developed to be effected by ergot.

In regard to the use of the tampon, he thought it one of the best means of arresting the discharge in menorrhagia.

The second annual meeting of the Indiana, Illinois and Kentucky Tri-State Medical Society will be held in the city of Vincennes, Ind., November 21, 1876. Prof. Byford, of Chicago, will deliver the opening address.

G. W. BURTON, *Recording Sec'y.*

MITCHELL, IND., Sept. 26, 1876.

Parsons' Improved Female Syringe.

This is something new and useful, and so constructed that it can be used for cleansing or medicating at will. It is constructed altogether on a new principle, being provided with a drain tube in the center, so that fluids thrown up through the annular space of the syringe may freely return thereby, and if the fluids thus used are for cleansing, any amount desired may be used; or if the fluids are for the purpose of medication, they may be re-used or returned as oft as desired. The object of the inventor in the use of the instrument is, that as soon as the nozzle end of the syringe is fairly introduced, place the soft bulb in the fluids and commence its manipulation, and continue to do so while gently, but slowly, introducing the syringe, and by this means of procedure all unhealthy excretions which may have been on the walls of the vagina, or about the os, are manipulated loose and drained off through the center tube. The plan of holding the bulb is, to let the induction-valve be underneath and grapple the large end of the bulb in the hand, with the top of the

band looking up and the ends of the fingers pointing in the direction of the induction-valve, and manipulate the bulb with the ends of the fingers. This is the *modus* of its working.

In the cut annexed the bulb worked by the hand is not shown.

For further description of the instrument and price, address the patentee, Dr. S. PARSONS, 222 East Washington street, or his partner, Mr. J. H. ZANDT, office of the *Indianapolis Sun*, Indianapolis, Indiana.

Correspondence.

CINCINNATI, October 21st, 1876.

TO THE EDITOR OF THE LANCET:

In a "review" of Dr. Bartholow's "Treatise on Materia Medica and Therapeutics" (LANCET AND OBSERVER, 1876), in speaking of the scheme of the work, I made use of the following expression: "*This scheme bears a striking similarity to that used by Kohler*" (Handbuch der Physiologischen Therapeutik und Materia Medica, Gottingen, 1876). Now, the basis of classification adopted by Dr. B. *does not differ essentially* from that adopted by Kohler. The corner-stone on which the fabric of Bartholow's "schema" is erected is the same as that on which Kohler's "classification" is arranged. Remedial agents are divided into *two principal groups*, and these groups again are subdivided. To be more explicit, we shall again quote from Bartholow, using *italics* at the point where his basis of classification commences:

"Part I. Modes in which medicines are introduced into the organism.

"Part II. The actions and uses of remedial agents.

"Those used to promote constructive metamorphosis.

Those used to promote destructive metamorphosis.

Those used to modify the functions of the nervous system.

Those used to cause some evacuation from the body.

"Part III. Topical remedies."

If reference be made to Kohler's work, the publication of which *antedates* Bartholow's book, Kohler having issued his first volume in 1875, it will be seen that the German author founds his classification on precisely the same general basis, *i. e.*, "1. Agents which promote constructive metamorphosis; 2. Agents which promote destructive metamorphosis." "Part first" of Dr. B's. arrangement may be excluded from further notice, as it applies only to the manner in which medicinal agents "are introduced into the organism," and does not bear upon the "classification" of remedies. Coming now to "Part II." we find in groups third and fourth: "Those used to modify the functions of the nervous system. Those used to cause some evacuation from the body." Group third, of Part II., is only a condensation of Stille's fifth, sixth and seventh groups of remedies, while Bartholow's fourth group corresponds with

Stille's eleventh group. As a proof of what we have stated, *i. e.*, that the basis of Dr. Bartholow's classification is founded on the separation of remedies into two grand divisions, we quote the author's words from his "schema" (italics our own):

"In this scheme the action of the medicine is followed from its introduction into the stomach to its exit from the organs of excretion. Some remedies are used solely or chiefly for their influence on the primary assimilation. Other remedies, with or without affecting the function of digestion, modify the process of assimilation, *either promoting the construction of tissue, or the retrograde or destructive metamorphosis. Iron may be taken as a typical example of the one, and mercury of the other mode of action on the function of assimilation.* THE THERAPEUTICAL APPLICATION OF THESE REMEDIES IS BASED IN THIS CONCEPTION OF THEIR PHYSIOLOGICAL ACTION. A large group of remedial agents is used not to influence the metamorphosis of tissue, but simply to modify the functions of the nervous system, of which morphia and strychnia may be taken as types. *It is true that probably no medicinal agents modifying function does so without affecting structure;*" in other words, *all remedies* either promote constructive or destructive metamorphosis of tissue. This, then, is the basis upon which Dr. Bartholow builds his classification, and for this "classification" of remedies he claims *originality*, as witness the words of his preface: "An examination of this treatise will disclose the fact that it differs from other works in its *scheme* of classification." In our "review" we stated, as before mentioned, that Dr. Bartholow's "scheme bears a striking similarity to that of Kohler;" we reiterate the remark, the proof of its truth having been fully evidenced in the October number of the LANCET AND OBSERVER. It matters not what classification either Kohler or Bartholow *adopt*, nor whether they be exactly similar or entirely unlike. If, however, an author claims *originality* in his classification, it is becoming in a "reviewer" to investigate such a claim. The only thing in Dr. Bartholow's "schema" that might, possibly, strike the reader as new is the arrangement of part second of his "classification:" "Remedies which are used: 1. To promote constructive metamorphosis; 2. To promote destructive metamorphosis." By his own admission, "*The therapeutical application of remedies is based in this conception of their physiological action.*" We understand that Dr. Bartholow disclaims any similarity between his own and Kohler's classification, insisting that Kohler's classification is based upon the Bence Jones' arrangement. Conceding, for argument's sake, that Kohler's arrange-

ment is based upon Bence Jones' chemical classification, the question naturally arises upon whose classification then, *if not original*, is Dr. Bartholow's arrangement based? On the 6th of May, 1868 (almost nine years since), Dr. C. Z. McElroy, President of the Muskingum County, Ohio, Medical Society, read a paper "On the Dynamics, Principles and Philosophy of Organic Life—An effort to obtain definite conceptions of How Do Medicines Produce Their Effects?" This paper of McElroy's, which excited much comment at the time, was reprinted from the "*St. Louis Medical Reporter*," 1868, and put on sale in the year 1869. If McElroy's paper and Bartholow's "schema" be compared, it is at once evident from what fountain-source Dr. B. has imbibed his *originality*. On page 14 of Dr. McElroy's paper we read as follows:

"Medicines, then, as they influence the leading organic process of life, are classified as follows:

PROMOTERS AND RETARDERS

of	of
Nutrition	Oxidation
or	or
Constructive Metamorphosis.	Destructive Metamorphosis.

This tabulation combines scientific exactness of classification, and, as in chemistry, the classification of itself explaining how each therapeutic agent or measure produces its effects.

These are the two great classes, each subdivided into two other classes. The organic processes of nutrition and oxidation have, no doubt, modifications in regard to time, and the character of the organic matter undergoing the process of assimilation or oxidation; or, in other words, constructive or destructive metamorphosis. The nutrition, for example, of the medulla oblongata would be, very probably, different from that of the gastrocnemii muscles; and, if true in this instance, would be true, also, with reference to other and dissimilar tissues. They each have their mode, or rate, and time, of nutrition and oxidation; and must, also, be differently influenced by different agents of the *materia medica*, or by the same agents. As a refinement, the class of promoters of assimilation may be subdivided just so many times as they are widely different textures to be influenced; but, for practical purposes, this need not be very minute. So, also, the retarders of assimilation may be subdivided in the same way. The promoters and retarders

of oxidation, or destructive metamorphosis, may be in like manner subdivided. The great fact to be constantly borne in mind is, however, that the effects of all the four leading classes, or any subdivisions that may be made, are universal over the system, in some parts more than others, but all parts sooner or later brought under their influence."

If we go further and

"Trace to their cloud those lightnings of the mind,"

emitted by the *original* Dr. Bartholow, we see a still greater analogy between he and Dr. McElroy. Dr. Bartholow states in his "schema" (before quoted), in speaking of remedies which promote constructive and destructive metamorphosis, "*Iron* may be taken as a typical example of the one, and *mercury* of the other mode of action on the function of assimilation."

These comparisons are *identical* with those of McElroy (pages 30, 31), to-wit:

"For illustration here, the hydrargyri chloridum mite is selected. Introduced into the stomach, the nervous system seems measurably indifferent to its presence; force is neither promoted or retarded by it in any considerable degree. It is, however, certainly rendered soluble in the stomach, by means not definitely known, and is taken up by the circulation and distributed over the whole system. What happens in this case? In the circulation, to the extent of its capacity in quantity, it arrests the formation of albumen, and the metamorphosis of albumen into fibrin, and converts into excrementitious matter those substances already in existence in the blood, to the extent of its chemical equivalents. It further, either of itself or the compounds it forms with albumen and fibrin, supplies conditions for the more or less rapid disintegration of the tissues already in existence, so that the bulk of excrementitious matter in the system is largely augmented. It has, in fact, measurably arrested nutrition or constructive metamorphosis, and largely increased waste, or destructive metamorphosis, not so much, perhaps, in the nerve tissues as in other solid structures, so that the circulation is loaded down with excrementitious matter.

"As another illustration, take some form of iron, say the ferri redactum. Introduced into the stomach, it is, or certain portions of it, rendered soluble by its chemistry, and passes into the circulation. What does it do? In the fewest words, it quickens every act of life. The iron, or its organic

compound, hæmatin, in the blood, carries the life-giving oxygen to every organ and tissue, and brings back to the lungs the carbonic acid resulting from these quickened operations. Increase of red discs, the oxygen and carbonic acid carriers; increase of albumen and fibrin; increase of muscle and other tissues."

Other points of similarity might be quoted, *but we forbear*. McElroy's paper is so much more elaborate than Bartholow's "schema," that we regret we have not the space to cite it more fully.

In the *New York Medical Journal* of July, 1870, Dr. McElroy, in an elaborate paper on "The Bromides: their Physiological Effects and Therapeutic Uses," again arranged the "classification" just mentioned. In 1871, Dr. Bartholow wrote a prize essay on "The Bromides: their Physiological Effects and Therapeutic Uses;" a comparison of McElroy's and Bartholow's papers might afford interesting reading. In the October numbers (15 and 16) of the *St. Louis Medical Reporter*, 1868, appeared two papers written by Dr. McElroy, entitled "Hypodermic Therapeutics;" a year later, Dr. Bartholow still following in McElroy's foot-steps, published a paper ("Hypodermic Medication," 1869.) McElroy (1868), said, in speaking of the hypodermic syringe, "a point near the seat of pain is preferred for its introduction, *though not absolutely necessary*, for no matter at what point the puncture is made, the effects are sooner or later diffused over the whole system." Bartholow in his "Treatise on Therapeutics," 1876, (p. 11), states "*it is not necessary* to follow Wood, the discoverer of the hypodermic method, who advised that the solution be inserted at those points where pain can be awakened by pressure." In the September number of the LANCET AND OBSERVER, we were inclined to credit Dr. Bartholow for some *originality* in regard to this observation, in doing this we have wronged Dr. McElroy, who made an almost identical observation some nine years since. In the *Chicago Medical Journal*, January, 1869, Dr. McElroy published a paper, entitled: "How does Gelsemium Destroy Life? Antidotes and Remedial Agents." A year later (1870), Dr. Bartholow published in the *Practitioner* (London), a paper entitled, "Experimental Investigations into the Action and Uses of Gelsemium sempervirens."

The singularity of Dr. Bartholow's course during the last few years, in following up many of McElroy's papers with his own essays on *identical* subjects, and the marked *similarity* in train of thought, deductions and conclusions, so fully evidenced,

if a comparison of both authors' papers be made, induces us to think that Dr. Bartholow has not given Dr. McElroy the share of credit deserved by the latter gentleman. While we do not, personally, endorse the views regarding "*classification*" of remedies enunciated by either of these gentlemen, we must still insist that to Dr. McElroy belongs the *claim of priority*, in this matter of division of remedial agents into two grand groups, *i. e.*, those which promote constructive, and those which promote destructive metamorphosis of tissue. Since Dr. Bartholow is understood to have denied that his classification is based on Kohler's classification, and is said to have asserted that Kohler's classification was based on Bence Jones' arrangement, we are forced to the *conclusion* that the basis of classification adopted by Dr. B. is identical with that of Dr. McElroy's. Dr. Bartholow's statement, in his preface, that "*an examination of the treatise will disclose the fact that it differs from other works in its scheme of classification,*" is therefore seriously shaken, no matter which horn of the dilemma the gentleman accepts. Dr. Bartholow *can not affirm* that he was unfamiliar with Dr. McElroy's ideas on this subject; however, to clinch this point, and in order to show that Dr. B. *was perfectly familiar* with Dr. McElroy's "*classification,*" we append the following letter, which will speak for itself:

"101 Ninth St., Cincinnati, Thursday, Jan. 15, 1869.

Z. C. McELROY, M. D.:

My Dear Doctor—Please accept my thanks for a copy of your pamphlet on the "Dynamics, Principles and Philosophy of Organic Life."

I am glad to see the action of remedies studied from so sound a basis as the physical sciences. I shall look with interest for your forthcoming work.

Very truly,

ROBERTS BARTHLOW."

We now demand of Dr. Bartholow, not as a "reviewer," but speaking for the readers of the LANCET AND OBSERVER, his reasons for claiming *originality* in the schema of classification of remedies. In the meantime the editor of the LANCET will, no doubt, allow either Drs. Bartholow or McElroy to "rise and explain" their respective positions on this interesting point.

T. C. M.

GALENSVILLE, OHIO, October 25th, 1876.

TO THE EDITOR OF THE LANCET:

A certain writer has said, that "*criticism* is the heavy artillery which sweeps a regiment from the field. *Reviewing* is the glittering spear which inflicts the pangs of death upon each rebel against the laws of good taste. The critic demolishes the army of culprits *en masse*; whilst the reviewer leads them to execution, by detail." Another distinguished writer (Lord Byron), has justly stated that "an author's works are public property; he who purchases may judge, and publish his opinion if he pleases;" also, that "in the absence of the regular physician, a country practitioner may, in cases of absolute necessity, be allowed to prescribe his nostrum, provided there be no quackery in his treatment of the malady." In the October issue of your valuable journal, I "prescribed my nostrum" for your abominable "reviewer," and, in *imagination*, I can see that unhappy mortal punctured and impaled alive by the keen points of my satiric arrows. In the "absence" of Dr. Bartholow's *defense*, I, a "country practitioner," must again spring to the rescue of that *great original genius*. If there is any one thing I do love, Mr. Editor, it is truth—naked, without even the fig leaf of flattery to hide its glowing charms. It is this love of truth that induces me to again *defend* poor, maltreated, innocent Bartholow. Your ignorant "reviewer" states, in speaking of Dr. Bartholow's remarks on *gold*, that "our author has evidently consulted Hahnemann," who advised the use of the remedy in *melancholia*. Now, this is a direct insult to the Dean of the Faculty. If your "reviewer" will refer to Widdleton's edition of "quaint old Burton," vol. 11, page 361, he will find it stated that "most men say as much of *gold* and some other minerals, as these have done of precious stones. Erastus still maintains the opposite part. *Disput. in Paracelsum*, cap. 4, fol. 196, he confesseth of gold, 'that it makes the heart merry, but in no other sense but as it is in a miser's chest,' *at mihi plaudo simul ac nummos contemplor in arca*, as he said in the poet, it so revives the spirits, and is an excellent recipe against *melancholy*,"

"For gold in physic is a cordial,
Therefore he loved gold in special."

Again, to quote quaint old Burton: "*Lemnius, lib. 3, cap. 6, de occult. nat. mir.* commends gold inwardly and outwardly used, as in *rings*, excellent good in medicines; and such mixtures as are made for *melancholy* men, saith Wecker, *antid.*

spec. lib." Gold does cure *melancholy*, as Dr. Bartholow has justly stated. A pair of bracelets, or a wedding ring have cured many a *melancholy maiden fair*, while the jingle of a pocketful of half eagles will produce a "*happy effect*" on any ordinary man. Your "reviewer" sneers at Dr. Bartholow's use of gold in "*Bright's disease*;" now we all know that gold is a useful thing in said malady, for it usually settles the undertaker's bill. The truth is, Mr. Editor, that our *grand original author* is a great humorist, as we stated in last month's LANCET. To say that Dr. Bartholow consulted Hahnemann for his information regarding *gold*, is simply ridiculous, for we all know that he has consulted "quaint old Burton." Dr. Bartholow (*vide*, Transactions of the Medical and Chirurgical Faculty of Maryland, Baltimore, 1876, p. 36), states, "*an empirick oftentimes or a silly chirurgion does more strange cures than a rational physician, says wise old Burton.*" As the distinguished author applied this quotation to himself, probably having in mind at the time the number of cases of *Bright's disease* cured by his *auric medication*, he can not complain if we use his own language. So much for "wise old Burton."

Your abominable "reviewer," in his horrid *critique* of Dr. Bartholow's *great original book*, which, *Dei gratia*, did not exceed one volume in length—or where would have been the end of this controversy?—has seen fit to doubt the *veracity* of the *grandest genius* of his day. Dr. Bartholow distinctly stated in his *chef d'oeuvre*, in speaking of the "hypodermatic use of chloral." "There is no means of treatment of *cholera* now known so effective as this, *as the author has personally witnessed*," (p. 338.) Your "reviewer" is base enough to call for the *numerous cases* in which Dr. B. thus applied his remedy. Now, this is damnable Mr. Editor; can not your "reviewer" wait until the *great original author manufactures* a few cases? Why consider such a statement *absolutely unreliable*? Was not chloral used in one or two cases during the "Riga" epidemic of 1871? Did not Reichard and Blumenthal give chloral at that time in *sixty grain* doses, *not hypodermically*, but by the mouth? (*Vide*, *Medical and Surgical Reporter*. Vol. xxv, p. 572. Also, *Bulletin General de Therapeutique*. Tome 81, p. 429)???

Did not Hall (*Practitioner*, July, 1875) report the *few cases* of Higginson, who treated cholera by the hypodermic injection of chloral, at Kheri, in Oudh, 1873? What difference does it make if Mr. Reddie, *Civil Surgeon* of Hurdus, in Oudh, reported unfavorably on the hypodermic method? (*Vide*, *Indian*

Medical Gazette, 1872.) I will not refer your ignorant "reviewer" to page 996 of Billing's Cholera Bibliography. (*Vide, Cholera Epidemic of 1873.*) I shall not evade the point made by your "reviewer" that our *original author* did not "personally witness" the magnificent effects of chloral hypodermically given during the Cincinnati cholera epidemic of 1873. Dr. Bartholow, be it known, exists as a *duality* (*a la* "The Corsican Brothers"), he practiced with his *hypodermic*, full of chloral, on cholera patients at *Kheri, in Oudh*, 1873; under the guise of an Englishman, named Higginson, he "personally witnessed," need we say, *in a manner little short of marvelous*, the effects of *chloral* in that Indian epidemic. We can see him now, in imagination, pacing slowly beneath the lofty palm trees,

"Of India's coral strand,
With *chloral*, in solution,
And a syringe in his hand."

Softly! softly!—he approaches each *collapsed* cholera patient, and injects his magical solution. The patients breathe! they revive! and, contrary to some other cholera patients treated by the *great original author*, *they live!* On a downy bank of moss, beneath the Chenar tree, whose green tufts overshadowed him, lulled by the sweet song of the bulbul, inhaling the fragrance of the Elcaya, our author rested after his arduous labors, and dreamt of how, in the good time coming, he should publish the history of his cases. The crocodile whispered to the green-breasted paroquet; the red-crested ibis slowly winged its flight over the marshy lagoon; a critical tiger growled from its home in the neighboring jungle—all nature seemed to await expectant for the forthcoming prize essay on *Chloral in Cholera*. Suddenly the *grand original author* jumped to his feet, and from his lips escaped an awful, ominous sound, intended for a roar, but it turned out only a well defined *bray*; whereat his annoyers turned and fled. Perhaps this is ambiguous; if so, let it pass—but, as "Subtile," in Ben Jonson's rare old comedy of the "Alchemist," hath it,

"Speak not the Scriptures oft in parables;
Are not the choicest fables of the poets,
That were the fountains and first springs of wisdom,
Wrapped in perplexed allegories."

Dr. Bartholow's *statement*, then, that "there is no means of treatment of *cholera* now known so effective" as *chloral*, would be most conclusive evidence, *if it were only true*. Having now demolished your own ignorant "reviewer," on this point,

I shall take to task another miserable "reviewer," who has seen fit to speak too truthfully of Dr. Bartholow's *superb* work. In the *Medical and Surgical Reporter*, Sept. 9th, 1876, p. 214," we read the following opinion of Bartholow's *Treatise on Materia Medica and Therapeutics*: "In presenting this work to the public, the author claims for it originality," etc. "The classification certainly has the characteristic claimed for it, since it is made as carefully different as possible from precedents." Remedial agents, according to Dr. Bartholow, are divided into those which "(1) promote constructive metamorphosis; (2) promote destructive metamorphosis; (3) which modify the functions of the nervous system; (4) which cause some evacuations from the body; and (5) topical remedies." This *highly artificial* and *contradictory* classification is relentlessly carried through, and the author packs his topics into his schema with the iron will of a Procrustes. It were a safe wager that three times out of four the reader could not guess under which heading a given drug will be found. The subjects discoursed, except a few lately introduced drugs, *do not appear novel*." Now, Mr. Editor, we protest against this Philadelphia attack on Dr. Bartholow's *originality*, and the very idea of calling such a charming young author a "Procrustes," is simply shameful; when will the persecution of this *splendid genius* cease? The Philadelphia "reviewer" knows well, that,

"Dogs blink their cover, flints withhold their spark,
And double barrels (damn them!) miss the mark."

The Philadelphia "Reviewer" certainly misses the mark when he attacks the *Latinity* of Dr. Bartholow; he evidently is not aware that the tale end of Dr. B.'s name is adorned with the title M. A. Now, to question the *Latinity* of an individual who wears M. A. after his name is something frightful. The Philadelphia "reviewer," evidently, thinks that the M. A. means *miserable author*, in Dr. Bartholow's case. Listen to this abusive remark: "If teachers insist on continuing the absurdity of pharmaceutical Latin, we have a right to ask them to give it correctly." Can it be that a great *original genius* like Bartholow should err in his Latin? The "reviewer" continues: "On the first page we open (Bartholow, p. 185), we find twice "glycerini" (for *glycerinæ*), "alcohol" (for *alcoholis*), "aquæ, q. s. ad." (where *aquam, q. s. ad* is required). *Very numerous errors of this kind disfigure the pages.*" Can it be that our *great* author's Latin also is *absolutely unreliable*? No! "Perish the base thought." *Even the Latin* of

Roberts Bartholow, M. A., M. D., is *original*; and our author's *pretension to a classical education* shall still be sustained, at least in the minds of his deeply sympathizing clientele:

"But since (perhaps my feelings are too nice)
I can not purchase *fame* at such a price."

We shall not quote further from this *cruel* Philadelphia "reviewer's" *critique*, as its sublime justice might, possibly, still more embitter the sad feelings of the *grand original* author and his truly erudite friends. *The American Medical Weekly*, Oct. 7, 1876," contains a letter from a certain Dr. T. J. Wilson. Dr. Wilson pays a deserved compliment to Dr. Bartholow; he says, "Bartholow appears to be a hard-working, efficient teacher; his work on *Materia-Medica* will not, I think, succeed. Its arrangement is *faulty beyond expression*, and the errors in the classics, and in the *Latin of the prescriptions*, are *very bad* indeed." We shall scan future compliments to our *original* author's *great work* with a feeling akin to sadness. Yours, therapeutically,

TIMOTHY TABBS, M. D.

P. S.—Please send me a copy of Bartholow's prize essay on Paul _____.

Translations.

By H. ILLOWY, M. D.

Pustulo-Crustaceous Syphilis of the Face.

A Clinical Lecture Delivered at the "Hospital Necker," by Professor Dr. HARDY.

GENTLEMEN: I am going to show you to-day a patient suffering from a cutaneous malady.

A physician should know the affections of the skin. They are constantly met with in practice; and to treat them we must at least be able to distinguish the principal characteristics of these maladies. It is, in truth, upon an exact knowledge of these great morbid groups that the whole treatment rests. I shall, therefore, present to you cases whenever the opportunity shall offer. I shall give you, in a few words, the history of this patient, whose malady would, at first sight, seem difficult to diagnosticate.

The patient is thirty-eight years of age. Until now she has enjoyed good health; was delivered about five months ago. She relates that about the sixth month of her pregnancy some small pustules (button-shaped boutons) appeared on her nose. I insist upon this point, for up to that time she had never had either chronic coryza nor engorgement of the glands, nor otitis—in one word, none of the ordinary manifestations of scrofula. She complains of nothing except of small furunculoid eruptions, that have left whitish cicatrices. She furthermore states that this furunculoid eruption was at no time—to use her own words—"very numerous." This, gentlemen, is the sole morbid antecedent to be noticed in the history of this woman. You can perceive on her arms, on her legs, and more particularly about her knees, cicatrices, resembling very much those of vaccination, caused by these furunculoid eruptions.

This woman has been pregnant four times. Two of her children are dead; one died very soon after its birth, and the other at the age of six months, of a malady unknown to us. The child of which she was delivered about five months ago is in the enjoyment of the best health.

It is, thus, three months before her delivery, that our patient noticed these pustules (buttons) make their appearance on her nose. I use this word (buttons) expressly to designate those slight elevations which are soon covered by crusts. They were lightly touched with tincture of iodine; they then healed, leaving cicatrices, not very marked, and but slightly reticulated.

Then the malady, abandoning its original seat, appeared upon the lips, the cheek, and the root of the nose; as it healed in one place it appeared in another.

During the course of this eruption the patient suffered but very little pain; she complains of a slight itching, especially if the crust is raised, and the ulceration laid bare; nevertheless, she does not scratch, and you all know what a painful sensation is this of itching, that causes people to tear their skin with their nails.

Thus this woman presents herself to us this morning with a cutaneous affection, situated in a rounded space, limited to the middle of the face; it is also, as you see, almost healed in the center, while in the circumference it is still in *statu quo*.

Furthermore, we find a well-marked coloration of the skin on the diseased points; it is not the red of erysipelas or erythema; it is a red somewhat bluish, or perhaps rather brown. In studying, now, the lesions themselves, we find chiefly crusts which present rather special characteristics. They

are small in volume, greenish-yellow in color, and rather dry. Searching for the origin of these crusts, we are somewhat embarrassed to affirm the previous existence of a tubercle or pustule; in fact, the primary lesion has altogether disappeared. Nevertheless, at our yesterday's visit, we were able to recognize a well-marked pustule at the root of the nose; the traces of it are still visible to-day; the epidermis was slightly elevated and distended by pus. This pustule broke very soon, and in its place a small scale has formed, which is already dry. We can thus suppose that originally there were pustules very much like the one described; but I can not assert that there were not at the same time tubercles, for in this sort of lesion pustules and tubercles are very frequently found developing simultaneously.

We have then, here, an affection characterized by scabs of a greenish-yellow color, peculiar to them, and whose origin is probably pustulous. I will add, that the malady is evidently chronic, as it dates back several months; nevertheless its course is rather acute, for, while the nose has already cicatrized, the eruption is in full bloom in other parts; it has a rather eccentric, serpiginous course, and to which we shall revert again when speaking of the diagnosis.

Now, having passed in review all the details of the malady, we must know how to name it. From the appearance of the crusts that cover the face, several affections at once suggest themselves to us. For example, it is perhaps, an impetiginous eczema. In truth, we frequently find these greenish scabs in impetigo, and furthermore you all know how very common this affection is. We must, however, abandon the idea of an impetiginous eczema; we need no other proof than the pustule observed yesterday morning—a pustule large, unique, and rapidly covered by a dry scab. This is not a pustule of impetigo; in this affection the pustules are generally small and pointed; a certain number of them appear at one time; they approach each other, become united, and then in one mass, in which it is impossible to recognize the primary lesion. Besides, in impetigo, the ulcerations are superficial, the crusts more moist and softer, and leave no cicatrices. In this case, we find evident cicatrices; it is, therefore, not with a superficial malady, like impetigo, that we have to do with here. Touching the diseased skin, we acquire the notion that the lesion is a profound one, and is veritably seated in the dermis; furthermore, we have not in this case the itching that accompanies impetigo. Lastly, impetigo is essentially a diffuse affection, and that in no

case limits itself as the malady now before you has done. The redness that surrounds the pustules and the crusts is a bright red, never brown, like here. We must therefore reject the idea of impetigo; we must not think of any but of a profound affection accompanied by ulcerations that leave cicatrices. In a word, we have here an affection designated by the name of lupus, because, like the wolf, it devours all that it reaches. But, again, this is a common name for all the maladies that destroy the tissues, and among the maladies the three principal ones are the scrofulas, the syphilitic, and the cancers of the skin. We have, therefore, not progressed very much, as we may have to do with any one of these maladies, if we hold ourselves to the term lupus alone.

We must therefore make a differential diagnosis. We may eliminate at once the canceroid, characterized by very limited ulcerations, with projecting borders, and rarely covered with scabs. We have nothing left but scrofula or syphilis. At first sight, seeing these crusts and the bluish tint of the skin, we might really believe it to be scrofula; and I should say here that that was the diagnosis of the physician who sent her to me; nevertheless, I must confess that I have a repugnance to adopting this view, and for these reasons: Firstly, the lesions are not exactly like those of scrofula. The scabs, above all, are too dry. In scrofula, the ulcerations are covered with scabs more voluminous, and of a special color, white or gray, or even black, if any blood effused; in rare instances they are of a greenish yellow, like in the case before us. The dryness and the greenish color of the scabs, therefore, indicate that they are not a product of scrofula. Moreover, in this latter malady, there is always beside the ulceration an œdematous swelling, or puffiness of the tissues; the patients present themselves with a nose augmented in volume, with the upper lip thickened and protruding. There is nothing of this in our case. It is true, there is a slight swelling of the skin, but it is hard, profound, and trifling in extent.

Furthermore, examining the skin closely, I do not find that vinous discoloration of scrofula. Here the tint is somewhat darkish brown.

Besides, the course of the malady is altogether different. The affections of scrofula run through their evolutions in several months, and, at times, several years; it is rare to see a pustule develop and heal in so short a time as in our case here. In the case before us, there has been no treatment to speak of, and already the disease is healed upon the nose. If

we had here a scrofulous affection, we should find upon it ulcerations and crusts, running their course.

Another very important point is the absence of all scrofulous manifestations during the infancy and childhood of this woman. We should have to admit that in her case the malady first appeared in her thirty-eighth year. But, gentlemen, it is only in very exceptional cases that you will find scrofulous manifestations on the skin first appearing at thirty or forty years, and even then, that there had been already manifestations in other tissues. Further, the cicatrices that we see on the limbs of our patient are not those of scrofula—they are the traces of furuncles.

If we reject the idea of scrofula, we must admit the syphilis. I believe, gentlemen, that this is a syphilitic malady. I find a well marked, brownish discoloration; dry scabs, which will be of a deeper color in a few days; I find, above all, cicatrices of a characteristic aspect, cicatrices not very marked, and but slightly reticulated. In scrofula the cicatrix is either deep or projecting, reticulated, often keloid. Here, the smallness, the slight depth, and the smooth appearance of the cicatrices, causes me to affirm the existence of syphilis.

But you will say to me, does this manifestation of syphilis exist alone without antecedents or concomitant phenomena? I do not know if the patient has had other phenomena, nor do I care. The character of the lesion here presented suffice for me to admit the existence of syphilis outside of all antecedents, which are wanting in our case. Remember, if you please, that it is more common, where the fact is unknown, to find syphilitic lesions than scrofulous eruptions. I affirm, therefore, that we have before us a syphilitic affection. So far for the principal diagnosis.

It still remains for us to establish as to what order of accidents we should class this affection and how to name it.

This lesion, gentlemen, belongs to the tertiary period, a period that comes a longer or shorter time after the primary phenomena—sometimes ten, or fifteen, or even twenty years. Often, and more particularly in females, the primitive symptoms have passed by unperceived, or are forgotten, and twenty years after an eruption similar to this one will all at once make its appearance. I hasten to tell you that in our case we find all the characteristics of tertiary syphilis; in fact, the region is circumscribed and deeply affected. *Circumscription* and *profundity*—here you have the characteristic traits of tertiary lesions; those of the second period are, on the contrary, superficial and disseminated. Thus, you have the es-

sential points determined. We have here an affection of tertiary syphilis.

If we want to go still further, we see that the affection belongs to the ulcerous variety; we have here, in truth, ulcerations which are the results of tubercles or pustules, and which are covered here with scabs.

If we go still further, we come to the pustule examined yesterday morning; we have then here an example of pustulo-crustaceous syphilis, and this name recalls the principal phenomena of this affection, the pustule and the crust. Nevertheless, I should make certain reserves in this respect, for often we find tubercles mingled with the pustules, and we have perhaps a tubercle—crustaceous syphilis—it is therefore better to hold to the name *ulcerative syphilis*.

Furthermore, if we consider the serpiginous form, so common in tertiary syphilis, we arrive at the last term of our diagnosis, and we call the malady of this woman *pustulo-crustaceous serpiginous syphilis*.

But how shall we explain the occurrence of these accidents, when we find no other trace of syphilis in our patient. It must be clearly understood that persons in the power of syphilis are all the time in a morbid imminence, and that under the influence of whatever expansion, we perceive these accidents supervening long after the period of inoculation. This is what has occurred in our patient. In fact, she found herself pregnant at an advanced age. Women should cease to procreate at thirty or thirty-two years, later in life gestation becomes for her a cause for enfeeblement. So our patient, pregnant at thirty-eight, has seen, under the influence of this debilitation, the tertiary accidents make their appearance for the first time. Besides, pregnancy has been recognized as one of the causes determining accidents pertaining to syphilis which until then remained latent. I have no difficulty in admitting that this is the way things have occurred.

I must say a word about her child. It has a very fine appearance and presents no trace of syphilis. But you must recollect that children do not inherit from a syphilis so ancient. After fifteen or twenty years, the transmissible force of the syphilitic virus is exhausted, and at thirty-eight years this woman was able to procreate a child perfectly healthy as to syphilis, and who will remain healthy as to syphilis, for the hereditary accidents of this malady always develop themselves in the first two or three months after birth; this infant is already five months old.

Now, as to the prognosis: it is favorable, and I am convinced

that with the treatment which I shall indicate to you, we shall obtain a rapid cure. Nevertheless, you must remember that ulcerative syphilis is a grave affair; the impulse once given to syphilis, there are numerous relapses. I believe that we shall cure our patient, but I will not answer for it that she will not have a return of the same accidents in the course of the two or three years following.

As to treatment, the indications are very plain. For the first we shall administer iodide of potassium, the sovereign remedy for tertiary accidents, even as mercury is the medication for the second period of syphilis. At all events we may, perhaps, reach a quicker cure by adding a little mercury to the iodide of potassium.

In tertiary syphilis mercury alone rarely succeeds. Iodide of potassium, alone, succeeds very often; but the mixed treatment succeeds almost always (I was going to say always). You can then give the iodide of potassium alone, in doses of two grammes per day, and one or two pills of sedillot, each of these pills containing 10 centigr. of Neapolitain ointment.*

You may also use a preparation containing both of these agents united; use by preference one of those officinal preparations that give such admirable results, as the syrup of Gilbert for example. This syrup is prepared in the following manner: A solution is made of

R \bar{y}	Bin iodide of mercury,	grs. xvss.
	Iodide of potassium,	5xiiss.
-	In aqua destillata,	5xiiss.

To this mixture is then added seventy-five ounces of either simple syrup, or of a bitter syrup of gentian, or of guaiacum. Each tablespoonful of this syrup (more exactly, each 25 grammes) contains:

Iodide of potassium,	grs. viiss.
Bin iodide of mercury,	gr. 1-7.

It can be given as high as three or four tablespoonfuls a day. This, gentlemen, is a most efficacious preparation, and has the further advantage that its composition is unknown to the public. It is sometimes better not to say to the patient that he has syphilis, and it is then convenient to give them preparations that are not suspicious to them; otherwise, they

* Ung. hydrarg. cinereum.

might take offense or persuade themselves that they have no syphilis and abandon the treatment. Tell them that this syrup is going to act on the skin, or, better, employ a different word, though altogether false it is true, and tell them that this is a depurative syrup. They will then take it with confidence.

With this idea of useful dissimulation write always hydrarg. for mercury, Fowler's or Pearson's solution in place of arsenical liquor. You thus save appearances and cure your patient.

Gentlemen, we will use the syrup of Gilbert. However, there is something more to be attended to in this case, and that is the anæmic condition of our patient, an indication for a tonic, as the wine of quinquina, or perhaps even iron.

I must however add, gentlemen, that it is necessary in the treatment of patients suffering from these accidents that they nourish themselves well, to forbid them all excesses, night-work and fatigue of any sort. This will give you an explanation of the difference observed in the rapidity of cures in the hospital and in the city.

In the wards of the Hospital St. Louis, the patients are quickly cured, because they rest themselves, and because they lead a well-regulated life outside. Patients, however, on the other hand, who come to ask counsel at the consultation, and for whom the same medication is prescribed, are a very much longer time in being cured, because they continue to work, and, at times, they commit excesses. Rest assured that these hygienic precautions are a great part of the treatment of this malady.

Is there a necessity for any local treatment? Evidently none; the general medication will suffice. I am satisfied that in eight days there will be a marked amelioration, and that in a month the ulcerations will be cicatrized. Nevertheless, if cicatrization should be slow, the ulcerations might be vivified with a little tincture of iodine, or better, with a solution of argent nitric, or of zinc chlorid.

I shall after some time, again show you this patient, and I ask you to follow it with me; you will have the satisfaction of seeing it heal, and the treatment being the true touch-stone of diagnosis, I shall, for my part, have the satisfaction of seeing my diagnosis verified.

After a treatment of six weeks the patient left the hospital completely cured, May 31st. Her departure was retarded by an erysipelas of the face that supervened when the cicatrices were already formed.—Progres Medic., 33.

Editorial.

STEVENS' TRIENNIAL PRIZE, 1879.—This prize, established by Alexander H. Stevens, M. D., amounts to two hundred dollars. The questions for 1879 are as follows:

- I. "Bacteria, and kindred organisms, in their relation to disease."
- II. "Human excreta as a cause of disease; the diseases produced therefrom, and their prevention by hygienic means."

Competing essays, on either of the above subjects, are expected to give an account of our present knowledge, and also the results of personal investigation.

The essays must be sent in to the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1879. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced, at the Annual Commencement of the College, in March, 1879.

This prize is open for universal competition.

J. C. DALTON, M. D.,
Secretary of the Committee.

The well known London house of Macmillan & Co., publishers of *The Practitioner*, have undertaken the publication in England of "Micro-Photographs in Histology," the monthly work conducted by Drs. Seiler, Hunt and Richardson. A large edition is required by the English profession.

ERRATUM: On page 836, September number of LANCET AND OBSERVER, twelve lines from the top, for *second year period*—read, *twenty year period*. On this subject see Prof. Loomis' paper, in Smithsonian Reports for the year 1865; also, Prof. Bache's Researches.

On page 872, of October number, in the first paragraph, the second sentence should read: "This structural appearance of the tumor, its situation (we were able to introduce our index-finger fully three inches along the internal surface of the ster-

num), and the non-enlargement of the lymphatic glands, favored the idea that the malignant growth was the thymus gland."

The newest sensation appears in the *Christian Reformer*, a religious newspaper of this city, in the form of an "Advertisement—prepared by Rev. S. B. Miller, M. D., present Dean, and Prof. Wm. Paine, M. D., former Dean" of "The Philadelphia University of Medicine and Surgery." This advertisement contains the following facts and statements, which seem to be of sufficient importance to be reproduced in this letter:

The Faculty numbers seven Professors, including three clergymen, one editor of a religious newspaper, and the "Mayor of one of our adjacent cities." Five of these are graduated of this University. Among the clergymen are two of our Methodist city pastors, one of whom is Dean of the Faculty, and Professor of Obstetrics and Diseases of women and children. The Vice-President of the Board is a prominent local preacher of our church. We are assured that the "professors are all men of culture" and they "teach all, and more than is taught in any Medical College in the land." "The real nature of disease is demonstrated by Prof. Payne, as consisting of certain specific germs, together with the remedies which produce their immediate destruction will be fully taught," thus giving their students "a decided advantage over those who attend any other medical college in the country." This new system, moreover, "is more easily acquired, and is known to remove disease in one-fourth the time required by the old process."

The former Dean and present head of the Faculty, Dr. Wm. Paine, "is the author of several valuable works on medicine," and "deserves to rank with the greatest of physicians." The present Dean "has devoted the most of his life to public teaching, is an eloquent and fluent speaker, and has created quite a reputation as a medical lecturer. The Professor of Physiology and Hygiene is one of our city pastors, "a very ready speaker, chaste and eloquent, and will create for himself a reputation equal to any that have made themselves famous on this subject." As there are no less than four Reverends connected with this institution, I will cheerfully add one important item not contained in the advertisement. I am creditably assured that this college has had nothing whatever to do with the disgraceful traffic in bogus medical Diplomas, which has recently attracted so much attention, and justly excited so

much indignation throughout the world. I sincerely hope that the Faculty will be able to meet all the expectations naturally excited by the startling promises of this advertisement.—*Philadelphia Letter in the Northern Christian Advocate, Sept. 28, 1876.*

The above sounds very much like an echo from the notorious Philadelphia University, an institution that has been engaged for many years in the fraudulent sale of all kinds of diplomas. We had an impression that the Philadelphia University was squelched by an act of the Legislature, but it seems we were mistaken, and that the bogus affair still grinds on, and has progressed so far as to pervert for base uses a few Methodist clergymen, and a portion of the press published in the interest of that large and influential denomination.

The above letter was certainly not read by the responsible editor before its appearance in print, or he was ignorant of the base uses to which he was prostituting his columns.

Reviews and Notices.

Yellow Fever and Malarial Diseases. By GREENSVILLE DOWELL, M. D., Professor of Surgery in Texas Medical College. Philadelphia, 1876.

The subject of yellow fever is doubly interesting just at the present time, owing to its late appearance in an epidemic form at Savannah, Ga. Spanish, French and English medical literature are especially rich in treatises regarding this disease, but the medical literature of our own country is even more so.

Although volumes have been written regarding the malady by various observers, yet many of the most interesting points regarding its pathology and treatment remain still involved in doubt. Great differences of opinion also exist as to its origin, mode of propagation, and geographical limits. Numerous conflicting statements as to the efficacy or futility of quarantine are given, also as to the influence of altitude, race, and sex, on the disease. This confusion may be accounted for on the ground that various epidemic differ as to severity of type, and from the fact that the varied sanitary surroundings of localities infected seem to affect the character of the disease. It is only by taking the results of all reliable observ-

ers in the aggregate, and analyzing the different conclusions they arrive at, that we are able to deduce a few *general conclusions* regarding the subject. These general conclusions are, of course, based upon the preponderance of medical testimony on certain given points. The great work of Edward Nathaniel Bancroft (*An Essay on the Disease called Yellow Fever*. London, 1811.) is one of the best and most reliable of the early English works on the subject. But it is to our own country, as we before stated, that the medical profession of the world is indebted for its most voluminous and richest works on yellow fever; we allude to the grand contributions of Rene La Roche, of Philadelphia, and of E. H. Barton, of New Orleans, both of which works were published in 1855. We mention these works more especially; time and space prevent the enumeration of the various American authors who have contributed largely to our knowledge of the disease, as for instance, Rush, Drake, Bartlett, Carpenter, Fenner, Harrison, Lewis, Lawson, Smith, Stone, Tooley, Monette, Merril, Cartwright, Jones, and many others. It is not within the province of a reviewer to enter fully into further details, although the subject is a tempting one. The book we are about to review contains the *personal experience* of Dr. Greenville Dowell, of Galveston, Texas, who claims to have treated over 2,000 cases of yellow fever. Dr. Dowell states in his preface that "this work was undertaken with the sole object of furnishing to the profession a rational and more definite mode of diagnosis of yellow fever," etc., and "to give a more successful plan of treating that disease." The author further states, "I relate facts regardless of theory;" which is very laudable. In his introduction our author remarks: "I wish to correct the error that the *adjective* yellow attached to its name has produced, making many believe that all patients turn yellow before or after death, *which is not true; as not more than one in six becomes yellow; and of those who die of black vomit, not more than one in three turns yellow before or after death.*" Our author's testimony on this point is not new. Bancroft, as long ago as 1811, distinctly stated, "that neither the yellowness of the skin, nor the discharge of a dark colored matter by vomiting, nor even the existence of both these symptoms in the same patient is peculiar to the disease." Aitken (*The Science and Practice of Medicine*. 4th edition. London, 1866.) also affirms that "yellowness of the skin is common in the remittent fevers of tropical countries," also, that this yellowness and "black vomit is a symptom of small value," and that in the Lisbon epidemic of 1857 "yellowness was often wanting." On the other hand, numerous authors might be quoted who have invariably seen the disease associated with yellowness of the skin. Hillary (edited by Rush. Philadelphia, 1811) for instance speaks of the yellowness noticed by him during epidemics at the Island of Barbadoes. On this point, then, there is a conflict of statement. It is strange that Dr. Dowell should use, as if in seeming contradiction of his own statement, Blair's characteristic plate, showing the marked

yellowness of skin, a condition held to be peculiar to the disease by a majority of writers. Further on our author states: "I also wish to show that the yellowness of the skin is not due to bile, but to the hæmatin of the blood exuded through the capillaries and into intercellular spaces." Numerous writers might be quoted, whose views would not accord with those of Dr. Dowell on this point; but the majority of later observers will no doubt agree with Haenisch (*Ziemssen's Cyclopaedia of the Practice of Medicine*, vol 1, p. 467; article, "Yellow Fever") that, "the etiology of the jaundice would be that there was a solution of a part of the red blood corpuscles, and a transformation of their hæmatin with bile pigment within the circulation, the jaundice would then have to be regarded as hæmatogenous—an icterus from retention, which has been very generally assumed must be excluded, because the feces do not lose their color, and because it has not hitherto been possible to demonstrate any biliary acids in the blood." Dr. Dowell's statement, that a temperature below 32° Fahrenheit causes a cessation of the disease in its epidemic form, only corroborates the testimony given on this point by the great mass of observers. Dr. Dowell states that "no one ever has a second attack," so far as his own observation extends. Exceptions to this rule have however occurred; the Reviewer can instance the case of a gentleman who was born in New Orleans, and suffered from an attack of yellow fever when a youth; he left the South about the close of the war, taking up his residence in Cincinnati. A few years since he had occasion to again visit New Orleans on business, and while there he re-contracted the disease, but fortunately recovered. However, the weight of medical testimony seems to favor Dr. Dowell's view. Dr. McLean (quoted by Aitken), who had 22 years' experience with the disease in the East Indies, states: "second attacks of yellow fever are rare." Dr. Dowell's positive statement that the disease is not found "in the most malarial districts," and "never occurs where intermittents and remittents are most common," will be supported by many observers; nevertheless, there are writers who think that malarial influences have much to do with the development of the disease. Bancroft believed in the identity of yellow and marsh fevers. Haenisch is also inclined to the belief that there is an identity between the yellow fever miasm and malarial miasm. Most of the late European writers on the subject have never seen the disease in its epidemic form, and their mere theorizing amounts to nothing.

It is a notorious fact that quinine, which will produce its characteristic effects in fevers of malarial origin, exerts little or no influence in controlling yellow fever, although it is frequently prescribed.

The pathology of the disease, so elaborately worked up by pathological observers in Paris, London and Vienna, is also open to objections, for the reason that most of these eminent pathologists have never made an autopsy in a case of yellow fever. The

remark of Dowell, that "the disease is protean in its types, and changes so with its epidemical influences, that it is congestive one year, sthenic and inflammatory in another, requiring different treatment," and "the pathological lesions, no two alike," is probably just. We infinitely prefer the statements of medical men in Charlestown, Savannah, New Orleans, and Galveston, to those of the most renowned European pathologists.

The symptomatology of the disease may be said to be well established, and Dr. Dowell's views offer nothing new on this score. Our author believes that yellow fever is contagious, but that "exclusion by quarantine is impossible." It is noticeable that Dr. J. M. Calloway, whose valuable paper on Quarantine, lately read before the Galveston Historical Society, holds a contrary view; says Calloway (quoted by Dowell), "*Yellow fever, which is not generated in the human system, or transmitted from one person to another in any way, but whose germ or poison is generated outside the human system, and is taken in after the manner of marsh malaria poison. But unlike the latter, its germ is portable, and may be carried in vessels, trunks, baggage, cars of railroads, etc., from one point to another and thus propagated.*" Barton, who is not a believer in the personal contagion of the disease, contends that all the secretions of the disease have been inoculated without producing the fever. The same writer has also insisted that a high temperature and a high dew point conjoined are absolutely essential to the production of the disease in its epidemic form. Barton insists that the disease has often been carried to other places, and did not spread owing to the absence of the necessary meteorological conditions, and that a dew point (minimum 74°) has always been present in New Orleans and Savannah at the outbreak of epidemics, also that when the dew point descends to 58° , the epidemics subside. During the Lisbon epidemic of 1857, one hundred and eighty-two persons (according to Aitken) left the city and went to various points in the interior of Portugal, carrying the germs of the disease; eighty-six of these persons died, and says Aitken, "in no place was yellow fever communicated from them to any other persons in the place whither they went." It may perhaps in time be demonstrated that the seeming influence of altitudes (over 600 feet above the sea level) in checking the disease, may be owing to the slight degree of humidity existing in elevated districts. Yellow fever has occurred at points varying from 2,500 to 4,000 feet (New Castle, Jamaica), but the mass of medical testimony goes to show that an elevation of 600 feet and over almost offers immunity from the disease. Dr. Dowell offers nothing original regarding this special point. Dr. Dowell's claim, "that the disease does not originate in any territory now belonging to the United States," is opposed by the claim of Dr. Barton, that "it can not be imported." There is a conflict of opinion among writers regarding this point. So far as an individual opinion may be worth, the Reviewer may state, that in yellow fever (as in the case of cholera) the disease is indigenous to the

United States, and that the necessary meteorological conditions, conjoined with local causes, may at any time originate outbreaks of the disease. The attempt made by the United States authorities to prove that the cholera epidemic of 1873 was imported from abroad, has been a lamentable failure. A late English reviewer (*Medico-Chirurgical Review*, London, 1876,) has shown *conclusively*, by tracing up the ships in which the germs were supposed to have been carried to the United States, that said vessels *did not even leave infected ports*. The opinions of the majority of local health authorities of the "west," "south-west," and "south," *were adverse to the conclusions of over-wise army surgeons*, who appeared on the cholera field after the cessation of the epidemic, and drew up an elaborate report showing how a cholera epidemic was imported, that was *never imported*.

Notable outbreaks of yellow fever have been reported whose origin could not be traced to importation, as for instance the Baltimore epidemic of 1800. On the other hand, numerous instances might be cited where the fever seems to have been imported, and where the efficacy of quarantine has been fully demonstrated. Dr. Dowell's mortality, in over 2,000 cases, has been 25 per cent. in hospitals, 10 per cent. in private practice, 5 per cent. among children. Our author claims that age, sex, or color do not influence the disease. Bartlett (*Fevers of the United States*), asserts, that children are almost exempt from the disease, men are more liable than women, and the negro less liable to take the disease than the white. Haenisch, also claims that there are more deaths among men than among women and children, and that negroes are less liable than white. The fact of greater mortality among men may be accounted for on other grounds than peculiar susceptibility to the disease. The majority of American authors will be found to agree with Dr. Dowell. Rush, as long ago as the Philadelphia epidemic of 1793, stated that it was just as prevalent among the blacks as among the whites. Rush, up to the time of that memorable epidemic, had believed in the then generally prevalent opinion, that the blacks were less liable to the disease than the whites. In the Halifax epidemics of 1792 and 1800, the disease was especially fatal among the blacks. Aitken states that it is very fatal to the negroes at some points on the African coast; other authors might be cited in proof of this especial point. Dr. Dowell's success in the treatment of the disease has been more than ordinarily good. In hospital practice his mortality was only 25 per cent. In the Charity Hospital of New Orleans, from 1818 to 1843, the mortality was 50 per cent. In his private practice, extending over a period of many years and through a number of epidemics of yellow fever, our author's losses have been only 10 per cent. We doubt if this *slight mortality* has been ever equalled; certainly, it has never been surpassed. Good nursing is especially insisted upon by Dr. Dowell as the most important adjunct to treatment. During the height of the fever, when there is much pain in the back and head, he gives the following:

R Hyd. ch. mitis,
 Quiniae sulphatis,
 Opii et ipecac pulvis, a-a grs. xii.

F. charts No. 4. Sig.—One ever three hours.

Aconite (ten drop doses) in combination with spirits of nitre, is given, when the skin is hot, every two or three hours. The tendency toward congestions is carefully guarded against, by the use of mustard plasters, blisters and cups. If the patient becomes exhausted brandy is freely given; if the patient is restless, valerianate of zinc is given in from five to ten grain doses, and our author prefers this remedy to morphine, although he does not hesitate to prescribe the latter, as for instance in retching and vomiting.

R Brandy, ℥iv.
 Creasote, ℥i.
 Morphine, gr. iv.

Sig.—Table-spoonful every three hours in a little water.

In case the black vomit comes on he continues the prescription, and alternates with "tincture of chloride of iron, in fifteen or thirty drop doses, or tannin." Quinine is never given in the stage of calm. When the kidneys do not act, turpentine, buchu or nitre are given; "if stimulants are needed, gin." Dr. Dowell insists on feeding the patients whenever they wish food. When the fever is leaving, feeding must be insisted upon, or vomiting will return. European authors who discountenance the use of quinine and opium in the treatment of the disease, on the theoretical grounds that these remedies check secretion, derange the circulation, and that the latter agent is contraindicated especially because it causes suppression of the urine, will find little comfort in Dr. Dowell's treatment. French army surgeons, who discarded quinine as altogether useless in the disease as it prevailed in the Mexican campaign of 1863, will no doubt wonder what type of yellow fever Dr. Dowell has been in the habit of meeting. Our author's idea regarding the animalcular origin of the disease is amusing. His belief, that yellow fever will never appear again in Boston, New York, Philadelphia and Baltimore, or in New Orleans (in the sewer-
 ered portion of the latter city), will be put to the test in the future. Dr. Dowell should remember that in Charleston, South Carolina, no epidemic of yellow fever appeared from 1749 to 1792, a period of forty-two years, and even after the lapse of that time it re-appeared again in a most malignant form. We will venture the contrary assertion, that yellow fever will prevail at all these points at some future period; the whole existing history of the disease points to its erratic conduct on all former occasions, and we venture to base our prediction on this fact. There are numerous points in Dr. Dowell's work open to criticism, but time and space prevent their enumeration. The work is a val-

uable one as a narration of the history of yellow fever in Texas, containing as it does the reports of many different physicians living in the various towns of that State. Dr. Dowell's personal reminiscences of Texan epidemics afford pleasant and profitable reading. We congratulate the "Lone Star State" on having such a medical histographer, and hope that the success of Dr. Dowell as an author will stimulate other members of the profession in that section of the country to contribute more largely, than they have heretofore done, to the medical literature of America.

T. C. M.

The Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M. D., B. Sc., M. R. C. P., etc. Second American from the last London edition; revised and enlarged. Philadelphia: Lindsay and Blackiston. For sale by George E. Stevens & Co. Price, \$5 00.

The first edition of this work was so well received by the medical profession, that they at once accorded it the position of a standard text-book on the important subject treated. This edition has been very materially increased in size, and much of the matter entirely rewritten by the author. The addition of a chapter on the diagnosis of acute specific diseases is especially valuable. As a work for the use of students this has no superior, the language is particularly clear and terse, always to the point and fully up to the times. It is a real pleasure to commend a work of this character to not only students, but to practitioners and professors. The publishers have issued the work in exceedingly good style, and at a low price for the amount of matter contained in the book.

A Treatise on the Science and Practice of Midwifery. By W. S. PLAYFAIR, M. D., F. R. C. P. H. C. Lea, Philadelphia, 1876.

A handsomely bound book of over 500 pages. The high reputation already won by Dr. Playfair in this special department of medicine, is a sufficient guarantee for the meritorious character of this work. Every page is replete with interesting and instructive matter, containing the very latest information regarding the subject of obstetrics, full of hints of the greatest practical value. This work will find, we predict, a large and ready sale. The book is profusely illustrated with valuable wood-cuts, and is printed in beautiful type. The American publishers have corrected all the numerous typographical errors, which so marred the London edition.

T. C. M.

The Centennial Declaration of Human Rights. By GEORGE J. ZIEGLER, M. D. Philadelphia, 1876.

This is a volume of 263 pages, bound in tinted paper covers, that seem to blush at contact with the vulgar printed matter they inclose. If the author had entitled his work, "A Plea for Illegitimacy," the title would have been more appropriate.

The first chapter is on "sexual disorders." The author informs us that "sexual excitement may be measurably prevented and subdued by a sort of sexual depolarization in the co-education and freer social association of the sexes, the type of which is presented in the family, on the principle of the lightning-rod, which quietly, but steadily, equalizes the electricity between the atmosphere and the earth, and prevents explosion and injuries therefrom." In his chapter on marriage, the author states (p. 98): "*The act of sexual connection constitutes marriage*, it being, in fact, the natural wedlock and real marriage, formed as it is by the mutual attraction and consensual action of mind and body of both sexes in accordance with the laws of their being, appointed by the creative and omnipotent power, independently of all human ordinances and ritual ceremonies. Thus, sexual connection is *per se* the nuptial act, real wedlock and eventual marriage ordained by the Creator for the benefit of the individual conjunct and race. As, therefore, sexual conjugation is the objective, basic, procreative and natural union, it is the real and true marriage, and no human power can make it otherwise or render it illegal." The author is a firm believer in this "*natural marriage*," as he terms it. The book is permeated by such doctrines, and oozes its slimy moral poisons from each contaminated leaf. Under pretense of inculcating virtue, the author indulges in an abusive tirade against tobacco and alcohol. Either of these agents, *taken in excess*, are less dangerous to the people than the perusal of works of such a character as the one under review. The book panders to the lowest and most morbid tastes of the community, and outrivals in indecency the vilest bawdy publications. The author dedicates his work, "*To all mankind of every race and clime.*" The author signs himself a "Member of the Philadelphia County Medical Society" and of the "Academy of Natural Sciences, of Philadelphia." T. C. M.

Monthly Review of Nervous Disorders and Insanity. By PROF. D. A. MORSE, M. D.

The *Archives de Physiologie Normale et Pathologique* of Brown-Sequard, Charcot, and Vulpian, for the first half of 1876, contain some very interesting articles, among which may be noticed the second article in the January-February number, upon *Recurrent Sensibility*, or as it is entitled: *Des Conditions de la Persistance de la Sensibility dans le bout Peripherique des nerfs Sectionnes*, by Arloing and Leon.

Tripier, illustrated with five plates. To every student of the nervous system this paper will be very valuable, not that it adds so much to our stock of knowledge, but in presenting what is known in a different light, and in verifying theories advanced by others.

The history of "Recurrent Sensibility," is that what is now recognized as pertaining to this theory is of comparatively recent date, that older writers, who observed that the function of the anterior and posterior roots of the spinal nerves was not the same, failed to comprehend the subject, and were unable to declare in what the difference consisted. Alex. Walker was the first to publish an opinion that there was a difference in the functions, he reversing the present views entertained by physiologists, believed the anterior were for sensation, the posterior for motion. His views were published in 1809. Two years later, Sir Charles Bell published a few copies of a small pamphlet entitled: *An Idea of a New Anatomy of the Brain, submitted for the Observation of the Author's Friends*. He recognized the difference between the two roots, but still failed to show that the anterior was for volition, the posterior for sensation: on the contrary, he regarded the posterior as having their origin in the cerebellum, and administering to the organic or vital functions of the body, the anterior he regarded as being both motor and sensitive. In his experiments was foreshadowed, however, the true function of the roots, although he failed to observe it: thus, when he irritated the anterior roots of the spinal nerves in a dying animal, muscular contraction followed: when he irritated the posterior, there was no visible effect. Sir Charles Bell, at a much later period, proved by experiment and pathological observation, that there are two sets of nerves, one for motion and one for sensation, that the facial nerve is motor, and the ganglionic root of the trigeminal is a nerve of sensation.

I have his work now before me, entitled: "*The Nervous System of the Human Body; embracing the Papers Delivered to the Royal Society on the Subject of the Nerves*," published in 1833—the six papers referred to were published from 1821 to 1829. At the end of the volume are placed nine full-page, rough wood-cuts, which, though rough, clearly illustrate the subject intended. The author says in his preface, to Dr. Monro is due the credit of discovering "that the ganglions of the spinal nerves were formed on the posterior roots, and that the anterior roots passed the ganglions. Sartorini and Wrisberg observed the two roots of the fifth pair of nerves. Prochaska and Soemmerring noticed the resemblance between the spinal nerves and the fifth pair, and they said, why should

the fifth nerve of the brain, after the manner of the spine, have an anterior root passing by the ganglion, and entering the third division of the nerve?" It is singular that these men often had the truth staring them in the face and yet could not see it. He says: "Paletta described the anterior root of the fifth nerve and, tracing it to the muscles of the jaw, conceived it therefore to be a muscular nerve. But did this observation diminish the intricacy of the nervous system, or add to it? For example, Paletta, after the discovery of these branches of the fifth pair to the muscles of the jaw, and just as one would expect that he was about to expound the truth, adds, that for the other branches of the fifth nerve he does not know what to make of them! So that he, who really knew the detail of this part of anatomy most perfectly, was most confused." He says, "It will appear in the text, that after struggling with the difficulties in the demonstration of the nerves of the body for many successive years, I had recourse to their origin to find out their uses. I first took a view of the spinal nerves in all their course, and observed their exact resemblance to each other in every particular. I then by experiment proved that their roots had different powers, and that they really were what their anatomy indicated to me, double nerves. Strengthened in my conviction that the anatomy, if properly pursued, would bring symmetry out of confusion, I set about the examination of the nerves of the encephalon, and found that the fifth nerve of the brain was the only one which could bestow upon the head that which was given to the body through the spinal nerves. I then selected the nerves of the face for experiment, to demonstrate to others what I had convinced myself of, by anatomy. Had I commenced with experiments, they would have misled me: I should have supposed the fifth nerve to have been the nerve of sensibility, and the *portio dura* the nerve of motion. All I wished was to make a sufficient impression on those who had resigned all hope of a definite issue to the investigations of nerves. I had before determined that the fifth was a double nerve, a nerve of motion as well as a nerve of sensation; and that the *portio dura* of the seventh was more than a muscular nerve, that it belonged to the respiratory system, and that this was the reason of its running apart from the fifth." The *portio dura* of the seventh was found later to be the motor nerve of the face, and section of it, to give rise to "Bell's Paralysis," discussed at length by Bell, and later, by others.

What next appears to interest the reader is the discussion of the ganglia upon the posterior roots. He cites the views of Johnstone, Monro, Scarpa, &c. Johnstone's views were that

the ganglia were for the purpose of cutting off sensation. Monro declared that the ganglia did not cut off sensation. He declared that "the spinal nerves of the voluntary muscles pass through ganglia," thus mistaking the function of the posterior roots. Scarpa thought the posterior root belonged exclusively to the spinal marrow, while the anterior was the root of the cerebral nerve.

Bell's own views were, as given in the book we have cited above, published in 1811, that the posterior roots were of vital nerves, "the knots cutting off the course of sensation, and thereby excluding the vital motions from the government of the will."

But the reader may ask what has all this to do with the paper of Arloing and Tripier, or with recurrent sensibility? Simply this, they begin their paper with Magendie, who first gave the phenomenon in question the name of *sensibilité recurren-te*, in 1822. We have prefaced this with the history in brief of the discovery of the two roots of the spinal nerves and their functions, believing it to be of as much interest as any portion of the history. This brings us to the experiments of Magendie, 1822 to 1839.

But what is recurrent sensibility?

When the two roots of a spinal nerve are exposed, and sufficient time elapses to allow the animal to recover from the shock, if the anterior root be pinched there is a certain amount of pain and contraction of muscles follows, but if the posterior root be irritated, there will be more pain without contraction of muscles. If the anterior root be divided, the central end, that attached to the cord will be insensible, but the distal end will be sensible. If the posterior root be divided, sensibility is abolished, hence sensibility in the anterior must have been derived from the posterior root. The explanation made by Brown-Sequard is that sensation or the impression has been transmitted through the anterior nerve and returned by the posterior, through the peripheral terminations, the anterior, therefore, not being sensible.

We misquote Brown-Sequard when we say the "transmission of the sensation." On turning to page 5, of his work upon the "Central Nervous System," we find this language: "We must say that the name of *recurrent sensibility* is a very bad one, because sensibility is a vital property which can not move from a place toward any other, and therefore can not be *recurring*. It is the cause, whatever it may be, of the painful sensation which is *recurring*, and not sensibility.

"What is the channel of the nervous irritation generated when the anterior roots are excited?"

In the first place, we think it is necessary to repeat that the current is not toward the spinal cord, inasmuch as Magendie has well proved that after section of the anterior roots of a spinal nerve, we may irritate the central part without causing the least manifestation of any kind of sensation. It results, therefore, and as positively as possible, that the anterior roots have not the property of sensibility in the same manner as the really sensitive parts. On the contrary, pain is caused by the irritation of the parts of the anterior roots, in appearance separated from the nervous centers. But if the trunk of the nerve is divided, the irritation of the anterior roots on either end remains completely painless; it results, therefore, that the current which causes the pain passes in this trunk. But how far does the current extend toward the periphery of the body, before returning upon itself in order to reach the spinal cord and the sensorium? This has not been positively determined. It seems, however, already from the experiments of Magendie, of Prof. Cl. Bernard, of Volkmann, of Schiff, and from my own, that the return takes place at the peripheric extremity of the nerve-fibers. Kronenberg and Pappenheim have erroneously admitted that the current merely passes from the anterior roots to the posterior, at the place where they meet to form the trunk of the spinal nerves.

"The channel of the current which gives the pain when an anterior root is irritated, is consequently at first toward the trunk of the nerve; then in this trunk toward the periphery, where the *recurrence* seems to take place, and thence the current returns along the sensitive fibers of the nerve toward the ganglion of the posterior roots, and, at last, passes through the ganglion and these roots, and into the spinal cord.

"*What is the cause of the pain produced by the irritation of the anterior roots of nerves?* * * * * Some experiments, which we have made, render it probable that the pain caused by the irritation of the anterior roots is exactly of the same nature as that of cramps, and that both the pain of cramps and the pain which we call *recurrent*, to avoid circumlocutions, depend upon a peculiar kind of irritation of the sensitive nerves of muscles. * * * So, then, we conclude: 1. That the *recurrent* sensation is only in appearance recurrent; 2. That the anterior roots of the spinal nerves cause pain when they are irritated, because they produce a cramp; 3. That consequently, *there is no sensibility of any kind in the anterior roots, and that it is because they are motor, and not because they are sensitive, that they cause pain when they are irritated.*"

We have quoted the text of Brown-Sequard at length for

two reasons: that he is one of our best authorities upon the subject, and that before we take up the paper of Arloing and Tripier we may be fully prepared to do it justice, by having it well defined. The subject is important.

Claude Bernard, *Leçons sur la Physiologie et la Pathologie du Systeme Nerveux*, says, "le phenomene de la sensibilite recurrente est le fait le plus important de l'histoire general du systeme nerveux." *

The paper of our authors, as we have stated, begins with Magendie, who demonstrated what he called recurrent sensibility. Longet, in 1840 to 1844, first believed the fact established, then published a work in which he claimed that recurrent sensibility did not exist.

Cl. Bernard, in 1844, after having previously experimented with negative results, declared the anterior roots insensible. In his work: *Leçons sur la Physiologie et la Pathologie du Systeme Nerveux*, of 1858, he devotes 112 pages to the subject of recurrent sensibility, and on page 26, vol. i, has a plate to illustrate his views, in which are shown the anterior and posterior roots, the one without a ganglion the other with, the two at last anastomosing by the exchange of filaments, thus proving, if correct, that recurrent sensibility is due to the peripheral relations of the trunks from the two roots.

[To be concluded in our next.]

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*The phenomenon of recurrent sensibility is the most important fact in the general history of the nervous system.

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Original Communications.

Art. 1.—Preventing the Extension of Syphilis.

By J. R. BLACK, M. D., Newark, O.

Read and published by request of the Zanesville Academy of Medicine.

I need scarcely say that the part you have assigned me in this discussion upon syphilis is one of peculiar difficulty. It does not simply involve a description or a question of the relations of certain morbid phenomena to each other, but of nice, social, moral, sanitary and jurisprudential powers, possibilities and duties that arise in reference to a great public evil—the prevention of the diffusion of the syphilitic contagia from person to person. And, apart from these nice points in ethics lies another peculiar difficulty: the private and secret nature of the evil or disease, whose spread it is desired openly to counteract. In most diseases with which the sanitarian has to deal, there are no motives in those suffering by them for concealment, on the contrary, they and their friends are eager to let it be known, especially to those on whom reliance is placed for help, or as a hindrance to their diffusion. All is different in the case of syphilis; and just when, where or how

the sanitarian can best and most effectually put his hand to stay the progress of this social plague-spot, are questions requiring the most careful judgment, and, moreover, demanding the most anxious consideration.

There are none of us, who are fathers, who do not anxiously realize that our sons may, at any moment, be led during some youthful folly to contract the syphilitic blight, withering the very gemmules of life and all its bright prospects in its poisonous embrace. Many, very many, of the mysterious suicides committed during the prime time of life are wholly the result of the inroads of this fearful malady upon the body. I shall never forget the fate of a brilliant young student of mine, a native of your county, who, in a moment of hot-blooded weakness, yielded to the seductions of a cyprian, contracting syphilis, which became the shadowing burden of his mind by day and by night, and the cause of his madness and incarceration within the walls of a lunatic asylum.

Undoubtedly, one of the great problem of problems in the different phases of our morbid social dynamics is how to diminish or extirpate syphilis, without at the same time countenancing vice—how to wage a warfare of extermination against a fearful disease without encouraging the immorality upon which its extension depends.

Long ago, France adopted the method of registering and examining periodically the persons of the females in her houses of ill-fame, in the endeavor to limit the spread of syphilis. To say the least, the system has not worked out the sanitary advantages desired; or, in other words, has proved but a partial success. It is even claimed that it has wholly failed in its purpose, besides doing great moral detriment by a legal recognizance, and a removal of some of the impediments to illicit intercourse.

Be the facts on this head as they may, it is not my purpose to discuss them, inasmuch as the moral sentiment of our country is overwhelmingly against the adoption of the French system. Yet the fact can not be disputed that this system has in it an element of good, the aim to prevent the spread of a terrible malady, and one, too, in which the proportion of innocent sufferers is fully as great, if not greater, than the guilty. I refer, of course, to the communication of the disease by husbands to virtuous wives, and its entailment upon innocent children. But it is said, and with some truth, that if the fear of contracting this terrible disease were removed by legal or other supervision, the result would be to foster and encourage the prevalence of illicit intercourse. I can not

reckon the argument as entirely legitimate; in fact, if it proves anything, it proves too much. It proves that no attempt should be made to cure it in the guilty—they should be left to suffer and to die as an illustrated warning to others not to copy their example.

The blazoned advertisements we see in almost every issue of the daily press: “private diseases radically cured,” gives quite as much moral encouragement to prostitution as any system of registration and inspection, imperfect as it necessarily is as a safeguard against this disease. And, by the way, in this matter of the relation of disease to sin, sin in some form against natural laws, nine-tenths of the ills that flesh is heir to, have such an origin. The business of the physician would be light, indeed, if he had only diseases to deal with which were righteously contracted. “Let him who is without sin cast the first stone.”

In view of the sound objections to the French system, Dr. Sims, the late President of the American Medical Association, in his retiring address, after delineating in a very graphic manner the terrible and almost ineradicable ravages of syphilis, recommended another plan to limit or suppress it, which, he says, is “so simple and so evident that I only wonder it was not done long ago.” His plan is to deal with the disease precisely as sanitary authorities now deal with cholera or small-pox. The proposition does not appear to have been well received, and chiefly on the ground of its utter impracticability. And, certainly, it is open to this charge, putting it in the shape he did, and leaving it, as he left it, in the form of a general proposition. Let us, for a moment, consider how it would work if an attempt were made to apply it according to the sound sanitary principle he announces for our guidance: “*That contagious diseases can be controlled by isolation of the sick and the destruction of the contagia.*” In the first place he altogether ignores the difference between ferreting out a case of cholera and a case of syphilis. There are shame, disgrace, and urgent motives for concealment in the one case, and none in the other. There are potent motives for the physician and the friends of one sick with syphilis to keep the matter secret, while there are none such in a case of cholera. Certainly, if health officers or the sanitary police could ferret out syphilis in the face of such obstacles, their ferreting power must pass all human understanding. But, suppose the syphilitics to be thus detected, the next thing, according to the doctor’s proposition, is to have them isolated. Imagine all the syphilitics in a great city isolated; if at their homes, it would take a

considerable standing army to keep them there; if at one or two vast pest-houses, there would be immense indignation, open rebellion, and a great expense in awaiting the tedious destruction of the contagia of a disease so chronic as syphilis. If physicians were required by law to report every case of syphilis to the proper authorities, in order to effect its isolation, how many, think you, could be induced to obey? If some, more conscientious than others, did obey, they would soon find all that kind of business drifting out of their hands, and into those less scrupulous, thus defeating the very object of the requirement. The scheme is thus seen to be almost absurd in its impracticability, and deserves to fall, as it must, into speedy oblivion.

Syphilis being eminently a private disease, and yet one extremely disastrous to the general welfare, ruining the health of tens of thousands for life, and leaving a fearful impress upon innocent children to third and fourth generations, helping to fill our alms-houses, hospitals and asylums with wretches in most deplorable conditions, and endowing the world of humans with an amount of misery and despair beyond all the attempts of human cognition to grasp; it seems, in view of all this, that if there be any means whereby its prevalence can be lessened, without at the same time nursing the viper of promiscuous intercourse into renewed life, such means should be put into immediate execution.

Let us get at the root of the evil, and endeavor to discover the cause of its extension. A man, to gratify an animal desire, consciously risks the danger of infection, or the woman through hire does the same thing. In either case one of the two frequently deceives the other, by which a blighting disease is communicated. Now, the question for the sanitarian to meet in such a case is not the legality or morality of this animal gratification, but how to prevent the extension of a contagious malady. If he can do this without offense to law or injury to morals, the problem is well nigh solved.

As houses of prostitution are the channels through which the contagion is chiefly maintained and extended, at such places must the battle be fought for its limitation or destruction. The weekly inspection of the female inmates can not meet the danger, as trained experience and the results of its adoption have clearly shown. Those who have had much to do with syphilis, well know that from an apparently insignificant abrasion, not very conspicuous even on the easily inspected male organs of generation, a whole train of dreadful sequelæ may ensue. The detection of such an abrasion in the female

organs, in every case, is simply impossible. Suppose this abrasion to be just within the cervix, suppose it be on a little fold of the mucous membrane around the neck, on the posterior cul-de-sac, or on some of the ruga of the vagina, ten to one it would escape observation. And whenever it does, of course the protection of such examinations against the contagion is simply a sham and a delusion.

Or suppose, as must often happen, that a woman has connection at one time of the day or night with a man who has an infecting chancre, and in a short time after with one, two or three other healthy persons; what will be likely to occur? Why, of course, that the last named will be very likely to contract the disease, and all this may happen not once, but twice or thrice, in the interims between examinations. Obviously, this mode of preventing the extension of a contagious disease is strikingly imperfect.

After much reflection I see but one practicable device by which the sanitarian can meet the evil. The first requisite is a suitable law—a contagious disease act—prohibiting any one from aiding or facilitating the spread of contagious diseases, and prescribing certain penalties against every householder who knowingly permits or who fails to take the proper precautions against the communication of dangerous contagions from one person to another within his or her domicile. These precautions should be uniform, conveyed in plain, clear language, and drawn up by the authorized sanitary officers of the state. By them, they should be distributed to the health officers of every town or city for the proper observance and enforcement of the contagious disease act. The local health officers should be made the responsible executives of the law, attending to all the requirements for the limitation or suppression of contagion in their respective towns or cities; and in case of any householder's non-compliance, should appear as prosecuting witness against offenders.

As it is the business of every vigilant health officer to keep a watchful eye over all real or suspected foci of contagion, so in the instance of syphilis should he exercise over every house of prostitution an especial surveillance, as an occasional but sure disseminator of a dangerous contagious disease. In the furtherance of this end the first thing done should be to distribute to every house of the kind, a printed slip of the *requirements* made by the contagious disease act and the *precautions* prescribed by the sanitary officials for its enforcement. In brief the provisions of the act should be as follows:

1. The prohibition and penalties against the spread of the syphilitic or other contagion.

2. The requirements made of each householder, so that no member thereof shall endanger or propagate contagion to others.

3. The *precautions* prescribed by sanitary authority, needful to prevent visitors from communicating disease to any member of a household.

These precautions are the important point, and should be clearly stated by the sanitary officers of the state under the authority of the contagious disease act, in effect as follows: every separate room or householder justly open to the suspicion of allowing illicit intercourse in his or her domicile, should be required to examine ocularly all male visitors, who by words or deeds display an intention of exposing any of the inmates to the contagia of a private disease, in order to determine whether such visitors are wholly free from any appearance or indication of the syphilitic contagion in those parts of the body most commonly affected by it, or in other words, whether such parts are wholly free from all kinds of eruptions, sores, ulcers, inflammations or breaks in the skin or mucous membrane of whatever kind; and if not thus free, to summarily eject such visitors from the house as the common carriers of a dangerous contagion and so prevent its communication to any of the inmates. In brief, I would advocate male inspection at every house of ill-fame by its manager, and the prompt ejection of all infected persons therefrom; and in cases of a householder's non-compliance, to treat the delinquent as a violator of the contagious disease act, with punishment, on conviction, by fine or imprisonment, or both.

In support of the entire feasibility of this plan, this much may be said: the sanitary aim and object would harmonize with the interests and wishes of the occupants of every disreputable house, none of them wishing to contract such a loathsome disease, and the plan might therefore be fairly expected to gain their co-operation. As a safeguard against the spread of this contagion, male inspection has this very important advantage over female; there can be no difficulty in perceiving the disease—no expert would be required to detect it, even in its incipient stages. Any one with a good pair of eyes can see a pimple, an abrasion, ulcer or inflammation on the prepuce or glans penis, or a suspicious sore on the lips; and when seen, to say, "sir, you are a dangerous person, you are forbidden my house." Moreover, the examinations would be as frequent as the visits to houses of ill-fame, so that there would be no danger of extending the disease, as in the interims between examinations under the French system of

female inspection at regular intervals. Besides, men would soon learn to absent themselves while diseased, as their presence would only serve to make more public their odious infirmity. Nor can any valid objections be made to the shame to visitors to such houses of being regularly subjected to such an indelicate examination. Those who so far demean themselves as to become the habitues of such places, ought to be prepared for anything. On the other hand, this much may be said in its favor, that many young men would be deterred by the shame and indignation of such an examination from ever entering a house of the kind; and this too, at a time of all others the most efficacious in preventing vicious conduct, or before the first plunge is made into a career of vice. Nor is it reasonable to suppose that prosecutions against those who have disregarded the contagious disease act would seldom or never occur. Every physician has seen men so wrought upon by the indignation and despair of having contracted syphilis, that they would be prepared from the pure motive of revenge to appear as witnesses against the author of their woes. Besides, the threats which would be often uttered by visitors against the inmates of houses of ill-fame, of putting the law in force against them should any contagion be contracted, would have the effect of inducing them, from the impulse of self-protection, to comply with the requirements of the law and the precautions of the sanitary authorities.

The great objection can not be urged against this plan that it would give any legal or moral countenance to the act of prostitution. The deed may and should stand as an illegal one, open, as before, to punishment by the hand of the law. All that it is proposed to do, is to put such houses under sanitary surveillance, as the special propagators or centers of a dangerous disease. It simply puts them in the category of places that should be under sanitary surveillance, or as the frequent sources of an important danger to public health, to the end that, if irrepressible, they may at least be placed under a cross-fire of law, and thus deprive them as much as possible of the power to propagate and perpetuate an evil which in character, intensity and far-reaching effects is without an equal.

Art. 2.—Ozæna Syphilitica.

Read before the Cincinnati Medical Society. By BERNARD TAUBER, M. D., Lecturer on Laryngoscopy and Diseases of the Throat and Air Passages, Miami Medical College, Cincinnati, Ohio.

Ozæna syphilitica is not a disease with a pathological process proper to itself; it is only the aggregate of objective and subjective manifestations which appear in an advanced stage of a syphilitic affection of the nose. Of the pathological lesions found in syphilitic ozæna but little is known, on account of the infrequency with which examinations of the parts are undertaken, though Follin has made numerous observations.

I think, pathologically, it is a "syphilitic affection of the mucous membrane," and the grave complications manifested are to be ascribed to the peculiar anatomical construction of the affected parts.

The essentials of a syphilitic ozæna are ulcerations of the mucous membrane of the nose; the ulcers, as soon as they have destroyed the mucous membrane, must lay bare the immediate perichondrium and bone, include them in the process of ulceration, and thus cause destruction of the cartilage and bone.

I do not believe, as most writers have assumed, that ozæna syphilitica is due to tertiary syphilis, because the bones are so rapidly destroyed; on the contrary, I take the ground and claim that the "mucous membrane" is the part first attacked by disease, and the destruction of this leads to the affection of the deeper structures. What leads me to make this assertion are observations based on clinical experience. I could give you the anamnesis of many cases which bear out my statement, fearing however to tire you by the recital of clinical histories, I will give you but a brief *resume*, which will answer the same purpose.

I have noticed syphilitic ulcerations of the septum in ozæna were arrested and disappeared after several cauterizations, and no affection of the bones or cartilages ever manifested itself afterward; again, in cases where the ulcerations were not attended to, lead finally to necrosis. It is plausible that papules and ulcers develop on the soft palate, posterior wall of the pharynx and the septum as they do on the skin, and these papules undergoing degeneration, form ulcers, which have all the characteristics of a syphilitic ulcer. The reason why we meet with such extensive destruction of the nasal mucous

membrane, is its slight sensibility, allowing the presence of the disease to remain unsuspected for years. It is a well known fact that in the course of an ozæna syphilitica the deep ulcerative process not only destroys in a very short time the cartilagenous septum, but also the mucous membrane and the subjacent bones, beginning with periostitis and lead to caries and necrosis. A further cause for this extensive destruction, is that with each inspiration the current of air carries the infected secretions over all the parts, and thus also leads to infections of the nasal ducts. Usually the patient is cognizant of his unpleasant condition to a certain extent, but is unaware of the full amount of disagreeable odor emitted from his body; in the language of Prof. Cohen, "it must be endured to be comprehended." Where only one or two concha are affected the case may be looked upon as favorable. Very often, from loss of the nasal bones, the nose becomes flattened (*nez ecrase*) and disfigures the patient. In this condition anosmia is often met with, and it was formerly supposed that the seat of the disease was high up in the nasal fossæ, involving the olfactory region, and leading in some cases to atrophy of the vertical plate of the ethmoid or of the ethmoidal cells, or both, in conjunction with softening of an inflammatory kind in their neighborhood.

Spencer Watson, of London, in his recent work states that the nature of the inflammatory process is probably allied to lupus erythematosus of the face. We occasionally meet with chronic lupus of the face in connection with ozæna syphilitica (lupoid ozæna) often in persons whose constitutional aspect resembles that of lupus and whose family has a phthisical history, even though lupus may not have developed itself externally.

The course of ozæna syphilitica in children is different. In hereditary syphilis of children we are aware, and it can not be denied, that besides the syphilitic affection of the skin which they bring into the world, they have also syphilitic rhinitis; frequently, however, in children born without any visible syphilitic manifestations, after a lapse of time ozæna sets in. What name do we generally apply to it? To avoid all embarrassment to ourselves and to the family, we call it, euphronically, "scrofulous ozæna," a name which does not frighten the family, leads to no suspicions, yet does not change the nature of the affection.

I regard it as an ozæna syphilitica of hereditary origin. The ozæna may in all its manifestations present the picture of scrofulosis and still be of a syphilitic nature.

Rhinoscopic inspection will often reveal necrosed spots of the palate bones, sphenoid, vomer ethmoid and the basilar process of the occipital bone. The amount of destruction in many cases is enormous; instances are recorded where the cranial vault has been pierced and meningitis resulted.

The treatment is exceedingly tedious and unsatisfactory. In the first instance, surgical interference and local treatment is imperatively demanded. The necrosed bones must be removed by forceps; the tortuous condition of the nasal opening and the sinuses leading to them renders it frequently almost impossible for the surgeon to remove the sequestra; it is exfoliated splinter by splinter, and even if surgical interference is possible, there is always danger of infecting the sound parts.

Prof. Zeissel, of Vienna, uses the following solutions to remove the dead bones:

	R _x	Ac. mur. dil.,	5j
		Aq. salviæ,	5iv
		Aq. dest.,	5ii M.
or,			
	R _x	Chloride of lime,	5i
		Aq. dest.,	5viii M.

To be injected into the nostrils four or five times daily.

The local treatment consists in cleansing the parts with the posterior nasal syringe or with the nasal douche, containing disinfecting solutions of permanganate of potass, carbolic acid, chlorinated soda, etc. Otologists will claim that the use of a douche does mischief, by causing disease of the middle ear; even if it be so, the cleansing of the parts in ozaena with disinfectants is a better alternative for the patient than the probability of producing otitis.

Where ulcerations are seen and can be reached, either through the nostrils or behind the palate, the rhinoscopic cauterizer with fused nitrate of silver will do excellent service. A general treatment is only indicated when new syphilitic localizations are found or when the ones already existing fail to heal. In these cases we have then to determine whether a mercurial or an iodine treatment should be undertaken.

Lastly, by the rhinoscopic examination we are enabled to see the diseased processes and ulcerations of the Eustachian tubes, which prior to the introduction of rhinoscopy were only guessed at.

I think that the affection of the Eustachian tubes is chiefly due to the motions of the soft palate, which bring it in contact with the orifice of the tubes.

To treat these ulcerations at the orifice of the Eustachian tube I also employ the rhinoscopic cauterizer, which you will observe has a peculiar curve, so that it can be easily applied to the orifices; the cauterization causes great pain, but it is the only practical, successful measure. I would not advise, as most otologists do, the use of the syringe, as there is danger of its carrying the imperfections to sound parts.

Art. 3.—Scarlatina.

By S. R. VOORHEES, Mason, Warren Co., O.

The writer of this paper proposes to state some observations made during the late epidemic of scarlatina, which has been afflicting this community during the months of September, October and November of 1874.

It first made its appearance in C. L.'s family. Two of his children were taken suddenly ill; an eruption appeared on the skin, with some fever. A homœopathist was called in, and he pronounced it a poison by *Rhus. toxicodendron*, and treated it "*Similia similibus curanter*."

In ten days or two weeks Mr. L. called at my office and said that two of his children were dreadfully swollen. On seeing them, found they had general anasarca, and on inquiring, that they had had an eruption on their bodies, sore throat, glandular enlargement, and exfoliation of the epidermis.

From these two cases the disease spread rapidly, and soon there were several cases in the village.

The disease was generally ushered in with vomiting, rapid pulse—from 150 to 180 per minute; very greatly increased temperature—from 104° to 107° Fah.; red tongue, with papilla prominent. If old enough to describe their feelings, they complain of aching pains in every part, chilly sensations, and great prostration. As the disease progresses, by close observation can be seen a fine hair-like congestion beneath the epidermis, not more than from one to two lines in length. On pressure this efflorescence disappears, only to return when the pressure is removed.

The exanthema generally makes its appearance on the back, and soon assumes a deep scarlet appearance. It extends to the extremities in twenty-four or thirty hours, and begins to fade about the fourth or fifth day, and ends about the seventh day.

The especially diagnostic characters of the disease are, vomiting, rapid pulse, high temperature, pains in all parts of the body, with acute inflammation of the fauces, early appearance of the efflorescence on all parts of the body and extremities, with bright scarlet diffused character of the rash.

The precursory symptoms are of short duration, sometimes but an hour or two of uneasy and restless condition.

There is a close analogy between scarlatina and measles. In scarlatina the precursory symptoms are of short duration; the mucous membrane of the eyes, nose and fauces are red and inflamed, without secretion; pain and soreness in the throat; no cough or expectoration; eruption on the second day, and soon invades the entire body. The efflorescence is generally diffused—an odor resembling old cheese is emitted. The sequelæ are: glandular enlargement around the throat, exfoliation of the epiderma in lamina, and anasarca. While in measles the precursory symptoms are of about three days' duration; the mucous membrane of the eyes, nose and fauces are red and inflamed with increased secretion, coryza, sneezing, cough, with expectoration. The eruption occupies about three days in invading the body, disappearing the eighth day. The efflorescence occurs in small crescentric and circular patches, with intervening unaffected portions of the skin. The color is darker than in scarlatina, with more of a raspberry hue. The odor at first is sweetish, until decline, then it is sour. The sequelæ are: bronchitis, ascites, but no anasarca. The exfoliation of the epiderma is in furfuraceous scales.

From diphtheria scarlatina is distinguished by having no eruption, and a peculiar punctured-like flush of the throat, with extreme soreness from the beginning, and great dysphagia. Just posterior to the tonsils will be seen a white leathery-looking patch, looking as though it was placed on the skin, or standing out from it, while in scarlatina the sore has an ulcerated appearance, and secreting a purulent watery fluid. The sequelæ are different. In diphtheria there is long continued debility, with different degrees of paralysis.

The cause of scarlatina is an infection or contagion making its appearance in the form of an epidemic, and is communicable as long as the laminated exfoliations are thrown from the body, which may last from four to six weeks.

The prognosis of scarlatina is much influenced by the severity of the attack.

If the disease is ushered in with severe vomiting, temperature 104° , pulse 180 to 200, the prognosis is unfavorable. If the tongue cleans off on the third or fourth day, and the eruption assumes a livid color, there is great danger of a fatal termination of the case. The prognosis is extremely grave when it attacks women immediately after parturition. The appearance of mortification in any part is commonly, but not universally, fatal.

The treatment is more prophylactic than curative, it being a self-limiting disease. Very mild cases require little or no treatment.

As the disease has four critical periods to pass through, namely: the eruptive stage, the sore throat, the glandular enlargement, and the anasarca, it is necessary to modify them as much as possible. It is necessary to get one stage under control before the next makes its appearance. Where there is nothing to contra-indicate it, I usually administer a mercurial cathartic, followed by sulph. magnesia. In order to hasten the eruptive stage, I direct an infusion of hedeoma to be administered, and sub. nit. bismuth to allay the vomiting. I administer a saturated solution of potass. chlorat in \mathfrak{z} i doses every two or three hours, to control the sore throat, alternative with grs. x to xv of sulph. magnesia in solution. If the bowels are operated on too much, I administer opiates to control them, and also lessen the dose of sulph. magnesia, but do not abandon it entirely.

As soon as the eruption begins to fade, I discontinue the sulph. magnesia, and administer the potass. iod. every three or four hours in grs. iv doses, as a prophylactic to the glandular enlargement and anasarca. As an external application, I direct a piece of fat bacon or an onion poultice to be applied to the throat, and, if the glands begin to enlarge, I apply tinct. iodine, which often prevents suppuration. The fourth critical period is the anasarca. If it begins to make its appearance I continue the use of potass. iod., with potass. acetat, or with syr. scilla or digitalis. If all these stages make their appearance, it requires from three to five weeks to finish the treatment.

As far as fatality is concerned, one stage is about as fatal as another. I might relate a number of cases from notes taken at the time, but perhaps nothing of interest would be made known.

Art. 4.—Medical Electricity.

Read before the Alumni Association of the Miami Medical College, Sept. 28, 1876, by PHILLIP ZENNER, M. D.

Electro-therapeutics has been elevated to the rank of scientific medicines, and has assumed a recognized position in the medical art only in the last few years. With the earliest discoveries in electricity, extravagant hopes were cherished of it as a panacea for all ills, to be followed, when apparent that these great expectations could not be realized, by an entire disbelief in its medical virtues. Thus, also, every advance in electrical science, every discovery of its new modes of existence and methods of operation, has been hailed with a like enthusiasm, to again lose favor with the laity and the profession.

Even to-day there is a great difference of opinion as to the merits and modes of application of this agent. For this reason, and on account of the intrinsic value of the subject itself, I have deemed it worthy to be brought before this society; and while this sketch will almost necessarily be but a very imperfect summary, yet I hope it will be sufficiently clear and pointed to call forth the views of others, whose larger experience may entitle their opinions to more weight than mine can pretend to.

We are, perhaps, more indebted to Duchenne than to any other man for a scientific basis of electro-therapeutics. He entered boldly into a field formerly occupied mostly by unprincipled charlatans, and by his sagacious insight and diligent application, was enabled to establish on a sure foundation what had formerly been concealed in a mist of uncertainty. This important department was well heralded by such a man to whom medical science owes so much outside of this specialty. He applied electricity in cases of paralysis, neuralgia, rheumatism, and kindred diseases, but particularly in the different palsies he demonstrated its great value. In paralysis of central origin he recognized the fact that we have two kinds of palsy. The first is due directly to the central lesion; as this gradually heals there is often not a proportional degree of returning strength in the paralyzed part, for now the second palsy is established, due to a secondary affection of the nerves and muscles. It is to the latter alone that he considered electrical treatment of benefit.

While Duchenne accomplished much, there is one great defect in his system which lessens its power of usefulness. He

had experimented almost entirely with the faradic or interrupted current, and held in light esteem, almost contemned, the galvanic or constant current. For this he early encountered the opposition of Remak and others who experimented largely with galvanic batteries.

Their discussions, which were long and warm, were to a large extent on the subject of electro-physiology, a subject to which I can scarcely allude in this short article. As to their therapeutical results, while both sides went too far in their negative conclusions, they have proven that both currents may accomplish very much in the treatment of disease. The kind of disease mainly treated by these electricians has been already mentioned. In these they attained considerable, though varying, success. In the accomplishment of their results they have conferred a great boon upon humanity. In that fearful malady, paralysis, electricity helps to restore lost vigor, and thus infuses new life in otherwise useless members of society. It often brings relief from aches and pains which may render life vexatious or almost intolerable. But, other profounder and more incurable diseases have been benefited by the same treatment. Progressive muscular atrophy, incurable under ordinary measures, has been indefinitely retarded in its progress, and even improved under applications of the faradic current; and locomotor ataxia can at least be relieved of the severe pains which often attend it, by applications of the galvanic current.

Such has been the general use of electricity by the profession in ordinary medical cases; but, within the last few years, much higher claims have been set forth for its medical virtues.

Beard and Rockwell, electro-therapeutists of New York city, have published an extensive work, two editions of which have already appeared, describing new methods of electrization, ascribing to it much higher remedial properties, and applying it in a much more extensive range of diseases. The methods of application formerly in vogue are termed localized galvanization and localized faradization, the effects being limited by the electrodes being applied only to the affected part. Thus, in application to a muscle, the two electrodes are placed directly over it; or one over the muscle, the other over the most superficial part of the nerve supplying it. In applications to a nerve, the two electrodes are placed at two different points of its course, or one over a painful spot, the other more centrally, as over the spine. Beard and Rockwell instituted what they called general electrization, though they do not claim entire originality. They describe this under two

different methods, termed, respectively, general faradization and central galvanization. In general faradization the negative pole is placed at either the feet or the coccyx, while the positive pole is passed successively over the most important regions of the body, head, neck, spine, chest, abdomen, and extremities. A sitting averages between fifteen and twenty-five minutes. Taking a sitting of fifteen minutes, they thus apportion the time that the positive pole should be applied to the various parts of the body :

To the head,	1 minute.
To the neck, sympathetic and cervical spine, . .	4 “
To the back,	3 “
To the abdomen,	3 “
To the upper and lower extremities,	4 “

In central galvanization, one pole, usually the negative, is placed over the epigastrium; the other is passed over the forehead and top of the head, along the inner border of the sternocleido mastoids, from the mastoid fossa to the sternum, at the nape of the neck and down the entire length of the spine.

For these general applications they claim a decided tonic property. This is shown, according to their large experience, by improvement of sleep, increased appetite and improved digestion, regulation of the bowels, improvement of the circulation, increase of hardness of muscles and weight of the body, increased disposition and capacity for labor of muscles and brain. This therapeutical property would entitle our remedy to a trial in a large number of diseases not hitherto ventured upon by the profession. In this trial Beard and Rockwell, according to their report, have been signally successful. I quote from their work: “An agent which was formerly used mainly, if not exclusively, in paralysis and rheumatism is now used, and with far more brilliant success, in hysteria and diseases allied to it, in insanity, anemias, neurasthena, in nervous dyspepsia, neuralgia, chorea, in the convalescence from fevers, and all forms of pain and debility whatsoever.” As regards the indications for localized and general electrization, they use the former only when the disease is essentially local, in all other cases they use general electrization. They lay down these leading ideas as their foundation principle.

I. That electrization, besides being merely a local stimulant, also exercises an influence over general and local nutrition at once unique and unrivalled, and that entitles it to the highest rank among constitutional tonics.

2. That the accepted system of making the applications exclusively local is both illogical and inconsistent; that in the use of electricity, as of every other remedy, constitutional diseases should be treated constitutionally.

3. That the best method of bringing the whole system under the influence of the current is by general electrization as here described; and that by the use of this method the success of electro-therapeutics is materially enhanced, and its sphere very greatly widened, so as to include a variety of frequent and distressing constitutional morbid conditions for which merely localized electrization is but imperfectly indicated.

With the light of their experience before us, let us glance for a moment at the long debated question, and the oft vexing one to the practitioner, as to the comparative merits of the galvanic and faradic currents. The strong chemical action of the one with the comparatively feeble subjective phenomena produced by it, the slight chemical action of the other with its decided impression on sensation and power in producing muscular contractions, would appear to point to a degree of difference in therapeutic properties, such as is scarcely realized in clinical experience. But a certain distinction, based upon physiological grounds, can be positively made. The faradic current by its rapid interruptions causes incessant tonic or clonic muscular contractions, and in these alone, the passive exercise as it were, we find the source of its benefit in many instances. By this means chiefly do we restore strength to the limbs in the secondary palsy, following hemiplegia or paraplegia of central origin, and this doubtless is the rationale of much of the tonic influence of electricity in debilitated subjects. But there is a further and probably more important effect of electricity on the animal economy, an effect termed *electrotonic*, due to its chemical agency, which perhaps acts by direct influence upon the molecular constituents of the body, hastening, retarding, or in some way modifying molecular changes, though we are still ignorant as to these more proximate effects. This *electrotonic* effect is necessarily much greater with the galvanic current, whose action is constant and always in one direction. To this more particularly may we attribute most of the good effects of electricity in nervous diseases, which may be well illustrated by the pathological condition just mentioned, namely, paralysis. There are cases of this disease, in which the innervation of the muscles and nerves is so deficient, that the muscles will no longer respond to the faradic current, and yet they may contract violently

with even mild applications of galvanism, the latter restoring them to such a condition that the faradic current may regain its accustomed influence.

This general difference, then, based upon physiological grounds, we may remember in our treatment of cases, and yet we must not be led by it to any positive exclusiveness in particular cases. Very able men have given quite opposite opinions as to the treatment of the same disease. Thus, in the treatment of neuralgia, while Duchenne declares that the faradic current, and that alone is of great value, Anstie, a practitioner of deserved celebrity, speaks with equal positiveness of the great value of the galvanic, and entire worthlessness of the faradic current in cases of true neuralgia. But what is the verdict of Beard and Rockwell on this subject? They recognize the different physiological properties of the two currents, and base thereon a certain general difference in their treatment, but believing that in the present status of medical science clinical experience rather than physiological deductions must be our guide in treatment, they have applied both currents in all classes of cases. They report that sometimes one current answers best when from *a priori* reasoning we would have expected superior benefits from the other, and still more frequently in the use of both, by alternate applications, or in some similar manner the greatest benefit may be derived from electrical treatment.

It is not necessary to mention the different diseases upon which these clinicians have experimented and in which they have generally had remarkable success, their general character having been already sufficiently indicated. But we may refer to a few of their more singular and striking cases. They have reported brilliant results in some of the skin diseases, with the faradic and galvanic currents, but more frequently with the latter, they have speedily and effectually relieved the itching of prurigo and other diseases, and have readily cured very obstinate cases of chronic eczema. They also have had very favorable results in some of the diseases of children. Chorea of long standing and altogether unaffected by other means has often been much meliorated, not infrequently cured. Cases of marasmus, and the exhausting fevers due to summer complaint, have yielded to electrical treatment.

It would be interesting to make special mention of their researches in the special departments of surgery, ophthalmology, otology and gynaecology, but neither time nor your patience would permit. I am unable to say how far the fact of these higher properties of electricity, and its more extended

and successful applications, has been accepted by the profession. But the work of Beard and Rockwell has been translated into German, and spoken of in eulogistic terms, as well as many of its successes confirmed by clinicians of that country; but more especially among American physicians has their method been approved and extensively applied.

But a much closer and more extensive investigation must yet be made by the profession, before it will with any degree of unanimity agree upon the virtues of electro-therapeutics.

Art. 5.—Is the Use of the Obstetric Forceps becoming Unwisely Frequent?

By E. B. STEVENS, M. D., Prof. of Materia Medica, in Medical Department of Syracuse University.

Not a great while since, I listened to a discussion in a medical society, upon various obstetrical topics, when one of the conservatives remarked, that the welfare of the mother and the safety of the child would be promoted, if the practitioner would always leave his ergot and forceps at home. Perhaps this is only a strong way of expressing the idea of the well known aphorism, that "a meddlesome midwifery is bad." It is pretty clear, however, that the very general sentiment of the older portion of the profession accords with the careful experience and instructions of our best writers, to-wit: that the forceps is an instrument of too much power and possibility for mischief, as well as good, to be resorted to except in unusual cases, and to be employed with special precautions. Despite this, I think I can see a decided tendency to a very frequent, and increasingly frequent use of this instrument; indeed, as I fear, an unwise, and so unsafe frequency. It is to this professional rashness that I hereby wish to enter a protest.

A few years ago, conversing with a young physician of the city where I now reside, I was told that it was the custom here to wait a *reasonable* time for natural delivery, and then "to clap on the tongs." I am sorry to believe that a disposition of this sort is more widely entertained than is safe practice, and so perhaps justifying the somewhat extreme advice of my conservative friend.

A case has come to my knowledge within a few weeks, in illustration. A woman was taken in labor at eleven o'clock, P. M., and sent for her attendant shortly afterward. The labor not progressing to the satisfaction of the physician, he sent for counsel at three, A. M. (that is, four hours after the commencement of labor). Pains were vigorous, and regular, the os dilated, but head at superior strait. The forceps were applied at once, but they slipped off without bringing the child; the second physician applied the forceps with a like result; a third physician was called in, and bringing his own forceps, made another trial, and with a third failure. Thus were the forceps applied three times, by these three gentlemen, before the end of six hours' of labor, and with no unusual feature in the case or special urgency. After this the woman was allowed to proceed in the natural way, and it is to be hoped reached the usual natural completion. These gentlemen are three of my most esteemed medical neighbors, and all in the enjoyment of full practice.

I need not repeat the possible mischief that the forceps may produce, with even so intelligent and accustomed hands; our best authorities warn us of all this. We have fatal dangers for the child and for the mother; statistics sufficiently point out these. And even when we avoid these, there are serious injuries for the soft parts, of too grave a character to be risked without due reflection of its necessity. I do not by any means forget that the skill of the accoucher—his dexterity in the use of the forceps—may become so cultivated and assured, as to render his frequent resort to their aid comparatively exempt from danger, and so secure an abridgment of suffering grateful to the woman and comfortable to the attendant. Still, all the directions and rules of our teachers imply that we are not to regard this instrument as a proper resort in ordinary undelayed labor. It is time the intelligent physician must be allowed a degree of discretion for his particular case: how far particular conditions may be present; how far the mother may be in peril from other considerations than mere delay; how far the life of the child may be endangered. I admit that of all these the attendant must be permitted a certain degree of judgment. But the spirit of all our rules points to delay in resorting to the forceps. It is not sufficient that we desire to make a speedy termination of the case, and so return to the comfort of a disturbed couch; exhaustion from delay, loss of blood, convulsions, malposition, pelvic deformity, unusual size of child, some of these should indicate pressing danger to either the mother or child.

The rule of the old writers as to *time* is familiar: "the head should have advanced so low in the pelvis that the ear can be felt, for *six hours*." It will not be wise to accept this as a rule from which we may not vary; death of the mother or child may seriously threaten long before this, but so positive a rule shows the conservatism of authority. So, too, the statistics of forceps delivery teach us a similar lesson. In Great Britain Hospital practice, it has been found necessary to apply the forceps—*once* in 617 cases, though Churchill gives for all England, 1 in 351 cases. In France and Germany the use is more frequent. As I have remarked already, the statistics of results to the mother and child are additional warning to us. Still, as Cazeaux very well remarks, these are only statistics of fatal results, but without the attending circumstances, are therefore comparatively—or but partially, instructive. If these suggestions prove a partial check to what I fear is a growing monomania, I shall feel very thankful.

Art. 6.—Report on Otology.

By A. M. WHITEHEAD, M. D., Springfield, Ohio.

Read before the Clark Co. Medical Society, September 14th, 1876.

In presenting to this society a Report on Otology I need hardly say, that the great frequency and importance of diseases of the ear merit more consideration and study than is accorded them by the general profession. When the best authorities are led by their experience to assert that there are more ear cases than eye cases, and that not more than one in every three persons between the ages of twenty and forty years possess strictly normal hearing in both ears; and when we consider that a very common disease of this organ, in regard to which the laity have been taught erroneous doctrines—I mean chronic suppuration of the middle ear, which may involve not only the hearing power but the life of the patient; we must feel that it is evident, that we are dealing with a subject on which every practitioner of medicine is or should be very much interested. The time of the society will not admit of me dwelling or giving in detail the advancements which have been made in this department of our profession during the past

few years; it may be sufficient to say they have been most gratifying. The gradual diminution of cases which are classed as nervous deafness, the rare occurrence of cases in which the primary lesions are of nervous origin, is the surest evidence we have of the progress which has been made in the diagnosis and treatment of diseases of the ear.

Having presented to the society a paper upon this subject some time ago, and mentioned in a general way the means of diagnosis and manner of examining the ear, I will confine this report chiefly to a few cases which have been under my own treatment during the past few years.

CASE 1. C. S., aged 16, applied for treatment; constitution scrofulous. His hearing had been impaired about three years in both ears. A watch could be heard about three inches from the auricles. Examination showed catarrh of the fauces with enlarged tonsils. The drum-heads were sunken, and congested inflation of the middle ear by means of the catheter was followed by immediate improvement in the hearing. The air douche was used once a day for about three weeks, with an injection every third day of a solution of sulph. of zinc, grs. ii to 5i of water. The tonsils were scarified and the tincture of iodine applied. This treatment, with the use of a gargle of chlorate of potash morning and evening, and anti-scrofulous constitutional treatment, restored the hearing perfectly. I may mention that there was hereditary tendency in this case, as several of the family for three generations were afflicted with deafness.

CASE 2. E. G. C., aged about 45, applied for treatment, and stated that his hearing had been impaired several years. He also complained of tinnitus aurium and a sense of fullness in the ears. Examination showed an abnormal dryness of the auditory canal, with a thickened and sunken condition of the membrana tympani. A watch could be heard when placed upon the auricles. The use of the Eustachian catheter with Politzer's method of inflating the ear, resulted in a marked improvement in the hearing, without any change in the tinnitus or the secretion of cerumen. The treatment was continued by applying steam to the middle ear by means of the catheter. The use of this treatment for about ten days was followed by further improvement in the hearing and complete relief from tinnitus aurium. The secretion of cerumen was also increased to as much as would be expected in a normal condition of the parts. The result of the treatment of this case with a number of other similar cases which have come under my charge during the past year, has led me to regard steam applied to

the cavity of the tympanum as a valuable remedy, not only for catarrh and impaired hearing but for diminished secretion of the external auditory canal. I also think it confirms to some extent the prevalent idea that affections of the middle ear are connected with the diminution of the secretion of cerumen, that there is a physiological unity of the parts, and that they stand in dependence one upon the other.

CASE 3. Miss S., aged 15, applied for treatment, and stated that her hearing had been impaired about two years, and that she had been under the treatment of a homœopathic physician in this city all summer, but there had been no improvement in her hearing. The treatment he had used was Politzer's method of inflating the ear. Examination showed a congested condition of the membrana tympani. There was also naso-pharyngeal catarrh. A watch could be heard about four inches from the right ear, and about six inches from the left ear. The air douche by means of the catheter once a day for four weeks and an injection of a solution of common salt, of the naso-pharyngeal cavity, by means of the naso-pharyngeal syringe, with a gargle of a solution of chlorate of potash, morning and evening, resulted in complete relief from deafness and catarrh. I would state that although Politzer's method of inflating the ear is sometimes sufficient in recent cases, and in children, it can never take the place of inflation by means of the catheter, for the reason that the air is only forced into the drums. There is no counter current, as in catheterization, by which any accumulations that may have formed in the cavity of the tympanum may be removed. The force by means of the catheter is also greater and much more effective.

CASE 4. H. H. P., aged 28, scrofulous constitution, applied for treatment, and stated that his hearing had been impaired several years and was gradually growing worse. He also complained of tinnitus aurium and a feeling of fullness in the ears. Examination showed an abnormal dryness of the auditory canal, with ulceration and partial opacity of the drum-head of the right side. On the left side the drum-head was sunken and congested. A watch could be heard when placed upon the auricles. Under treatment by inflation with the catheter and the application of the vapor of warm water to the middle ear, with a solution of compound nitrate of silver grains xx to ʒi of water dropped into the ear morning and evening, and the iodide of potassium as constitutional treatment, the ulcers were healed and his hearing became perfect.

CASE 5. Was a man aged about 40, who stated that he

had not heard in the left ear for twenty years, and that recently the hearing of the right ear had become so much impaired as to seriously interfere with his vocation, which was that of a mechanic. A watch could be heard about one inch from the auricles. Examination showed acute inflammation of the drum-head of the right side. On the left side the drum-head was sunken, and less translucent than normal. The use of the Eustachian catheter was followed by a marked improvement in the hearing of both ears, and the patient expressed himself as satisfied if he received no further benefit. After one week's treatment a watch could be heard about two feet from the auricle, when the treatment was stopped, in consequence of the patient leaving this city. In this connection, I would state that in long standing cases, where there is a marked improvement at once, after the use of the catheter, the difficulty is in the Eustachian tube. Sometimes the mouth of the tube is only closed by a plug of mucous.

CASE 6. Mr. S., aged 21, applied for treatment, and stated that his hearing had been impaired about ten years, and was gradually growing worse. Examination showed catarrh of the fauces, with the tonsil of the right side somewhat enlarged, which had been amputated before he came under my observation. The drum-heads were sunken and partially thickened. A watch was heard about two inches from the ear of the left side; on the right side it was heard only when placed upon the auricle. This patient was under treatment eight weeks, and was completely relieved. The vapor of warm water was applied to the middle ear, alternated every third day with an injection of a solution of chlorate of potash.

The potash I have never seen recommended by any of the authorities as an application to the middle ear, but used it upon general principles, as I have applied it in cases of ophthalmia with very prompt effect.

CASE 7. E. T., aged 17, has had a discharge from the ear, with great impairment of hearing, since an attack of scarlatina in infancy. Hearing distance by the watch: right ear, two inches; left ear, one inch. Inflation, by means of the catheter, made a marked improvement in the hearing of the right ear, which only lasted a few hours. The cause of this, I suppose, was a change in the position of the ossicula; as the same effect followed the application of an artificial membrana tympani. After removing it the patient would hear well for a few hours, until the bones become displaced again. This patient was treated with an injection of a solution of sulph. of zinc through the catheter, and thorough cleansing of the audi-

tory canal, and a solution of the compound nitrate of silver dropped into the ear morning and evening. After one month's treatment an artificial membrana tympani was applied, which enabled him to hear ordinary conversation without difficulty. The treatment was then discontinued, in consequence of the patient leaving this city. I did not undertake to treat the perforations in the drum-heads, though since then I have noticed in Prof. Roosa's late work on the Diseases of the Ear, which is probably the best in the English language, a report of several cases of perforation of the membrana tympani of long standing, the result of scarlet fever, healed, and the hearing greatly improved by a long continued course of treatment, lasting from one to two years.

I have now under treatment a young lady, aged 16, whose hearing has been impaired since suffering from measles when eight years of age. Examination showed a perforation of the drum-head of the right side, with a suppurative inflammation. On the left side the drum-head was sunken and congested. Hearing distance by the watch on the left side was about five inches; on the right side the watch was not heard at all. This patient has been under treatment about two months, and the hearing of the left side has become normal. On the right side the inflammation is cured, and the watch can be heard when placed upon the auricle.

In making this report I have not attempted to enter into details. These cases are cited to show what can be done sometimes to relieve cases which seem to be the most unpromising, and in connection with the last two, of suppurated inflammation of the middle ear, I have a few practical remarks to offer upon otorrhœa, or a chronic discharge from the auditory canal. There is probably no disease which is oftener neglected, or more lightly regarded by physicians and the laity, than a running from the ear. It is generally supposed that the discharge is caused by inflammation of the external auditory canal; such, however, is not the fact. The reports upon this subject, by physicians of the most extensive experience, show that a very large majority of the cases commence in an inflammation of the middle ear, which results in ulceration and perforation of the membrana tympani. I will not stop to say anything about polypi, exostosis, or disease of the mastoid process, which we must regard as complications, symptoms, or effects of a purulent inflammation of the middle ear. Now, when we consider the anatomical relations of the seat of this disease, its close proximity to the brain, the jugular vein, carotid artery, and other important parts, it is not difficult to

perceive the danger of neglecting its treatment. The best authorities upon this subject have asserted that people die every year from a chronic inflammation of the middle ear, without the attending physician suspicioning the real cause of death, that an extension of the inflammation to the brain is not an uncommon occurrence.

In the treatment of otorrhœa cleanliness is of the first importance, for unless the parts are free from pus, medication will be entirely useless. The ear should be cleansed before each treatment, and this is most completely done by inflation with Politzer's method or the catheter, so as to drive the pus from the middle ear into the meatus, which may then be removed by injections of warm water with a hard rubber ear syringe. After the parts are thoroughly cleansed, most any of the astringents may be used. A solution of compound nitrate of silver, twenty grains to ounce of water, dropped into the ear morning and evening and forced through the drum into the Eustachian tube and the throat, by pressing upon the tragus as the patient swallows a few times, is often sufficient of itself, if continued a few weeks. Solutions dropped into the ear and allowed to run out without reaching the seat of the disease, without passing into the cavity of the tympanum, will do no good whatever. A solution of nitrate of silver, ten to sixty grains to ounce, sulph. of copper, five to twenty grains, sulph. of zinc, two to four grains, may be used instead of the compound nitrate of silver, or alternated morning and evening as the case may require, and this treatment if persevered with I believe will cure most any case of suppurative inflammations of the middle ear, unless there are complications, such as polypi disease of the bones or a constitutional cachexia, which may require appropriate treatment.

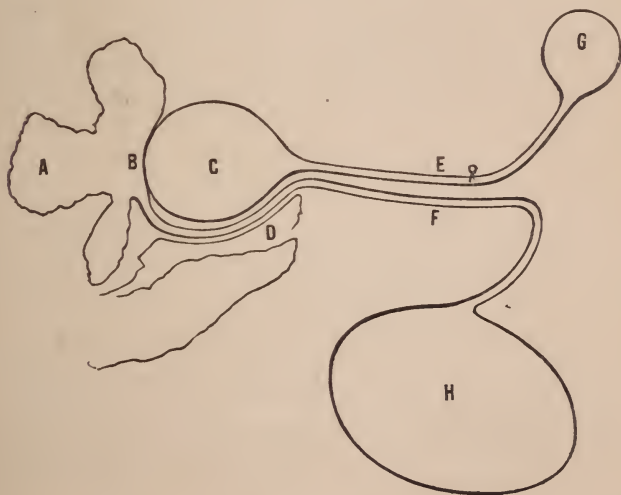
Art. 7.—Induction of Premature Labor.

By E. E. RIOPEL, Cleveland, Ohio.

Under the above head, in the last number *Obstetrical Journal of Great Britain and Ireland*, I find what is called a new apparatus for the "induction of premature labor," described by Dr. Chassagny. The new apparatus of Dr. C. is not quite so new to me, though made different to the one described, yet the principle is the same. The apparatus I have used for some

time is a double dilating bag. The one intended to act as a fulcrum in the vagina is made of strong rubber, connected with a tube for inflating. The upper bag is of extremely fine rubber, and much larger—enough to hold one quart—and has about one-eighth of its surface sealed to the upper part of the lower bag, so as to keep it in position. It is also connected by an inflating tube, which, however, instead of running through the lower bag, as the one above mentioned, runs under it, and is intended to rest upon the rectum. Its whole extent is free from the lower bag and made of stiff tubing, that the pressure of the lower bag may not hinder the free and easy access into the upper bag—a point very essential, which any one will readily understand.

The objection, in my opinion, to the apparatus described by Dr. C. is that the tube of the upper bag runs through the lower one. First—It hinders the lower one from assuming the shape natural to the part, if the womb is very high up or low down, for being fastened at both sides of the bag, its expansion is limited. Second—It is liable to compression, as it necessarily must be made of rather soft rubber. Third—The body of the upper bag not being fixed to the upper side of the lower one, may take its place by the side of it, and there be inflated; hence, of no purpose, and failing in the desired object.



A, upper bag; B, sealed to lower bag; C, lower bag; D, rectum; E, tube of lower bag; F, tube of upper bag; G, water for inflation; H, bag filled with water for inflating the upper bag.

Besides the bags above referred to, I make use of a third one of strong rubber, and contains about three pints, for the purpose of inflating. Having filled the inflating bag, it is connected with the lower one, and, by gentle pressure, made to fill it; I next connect it with the upper bag and proceed to fill it by gentle pressure.

The whole apparatus is, when empty, quite small and convenient; can be carried in the pocket, and, indeed, ought always to be carried there when not in use. It is an apparatus which no physician should be without, as it is always ready and always on hand, and becomes serviceable in most of uterine troubles—in hæmorrhages, in dysmenorrhœa, in leuc chorea, etc., etc. Especially is it of service in tardy labor with rigid os, and in feeble and exhausted conditions of the uterus.

Art. 8.—A Case of Accidental Hæmorrhage.

By WILLIAM H. COMEGYS, M. D.

I think that the history of the following case will be interesting by reason of—1st, The production of a pudental hæmatocele by external violence; 2d, The failure of ergot to increase uterine contraction; 3d, The good result following the rupture of the membranes in arresting hæmorrhage.

K. M., æt. 28; Ireland; multipara (six children); a well nourished and well developed woman of average size, in the last period of gestation. The patient stated, that while attempting to replace a fallen blind, she slipped and fell astraddle of the back of a chair, striking the left labium, and producing a very large swelling. I was immediately sent for and found her in the following condition: a large thrombus of the left labium majorum, three by two and a half inches. The mucous membrane was detached from the center. There was slight oozing of blood from the vagina, and uterine pains at long intervals. The patient stated that she expected to be confined the following week. I informed her that her condition indicated a detachment of some portion of the after-birth, and that in all probability labor would set in. I gave her a dose of opium, and ordered cold applications to the thrombus. These measures succeeded in quieting her, and everything remained quiet for twenty-four hours, when I was sent for in the

night in a great hurry, and was told that she had been bleeding a little all the evening, but as they did not like to disturb me, had waited until she had had a very severe hæmorrhage. On my arrival found her pale and prostrated, with a weak, frequent pulse, evidently arising from loss of blood; and with pains at regular intervals. On examination I found the vagina hot and dry, the os about the size of a dime, and terse. During a pain no progress in dilatation was effected. The membrane could not be touched. There was occasionally a flow of blood. About an hour after my arrival she had quite a severe hæmorrhage, and the pains were growing weaker, the os remaining undilated. I gave her a drachm of fld. extr. ergot (Squibbs), some brandy, and applied a tampon. Although I repeated it, the ergot did not have the effect desired, that is, to increase uterine action. After waiting some time, I called Prof. Taylor in consultation. On removing the tampon, after his arrival, we found a marked change for the better in the os; it was dilated to about the size of a half dollar, and the membranes were protruding. I immediately ruptured the sac and discharged the waters. The hæmorrhage very soon ceased, the pains from that time forward increased in frequency and force, and the patient was delivered in about an hour of a still-born child. The placenta was withdrawn in about three minutes, and the uterus contracted firmly. On examination of the placenta, there were evident marks of the separation, which caused the bleeding. The thrombus was then turned out of its bed, and the cavity washed twice a day with a weak solution of carbolic acid. The patient made a quick recovery, without any further accident.

Proceedings of Societies.

CINCINNATI MEDICAL SOCIETY.

The Cincinnati Medical Society met October 17, 1876; Dr. W. H. Taylor presiding. The minutes read and approved.

Dr. Bender read a paper on "Progressive pernicious Anæmia; and *Dr. Kempton* one on "Dental Caries: Its Influence on the General System, and Its Prevention."

Dr. Mackenzie said that in the last five years there has been a patient in the Cincinnati Hospital, at different times, suffering with the most marked anæmia he has ever seen. He has had her under his care on several occasions, and has never been able to

find any cause for the condition. The only symptoms she complains of are mental and physical weakness. She has had anæmic, but no organic murmurs.

Dr. Zenner said that he had seen this patient, and is now treating her for chills, which she has had frequently. She has had well-marked tertian intermittents, but whether all of her chills are of malarial origin or not he does not know. The cardiac murmurs are not organic. She has had anasarca frequently. A few months ago he found a trace of albumen in her urine.

Dr. Taylor said that for a few years past he has had under his care a widow lady, forty-five years old, in good circumstances, who has generally enjoyed good health, except that she was subject to occasional attacks of rheumatism. She has had idiopathic anæmia, the first symptom of which was palpitation. He could not discover any organic lesion. She gradually failed for eighteen months, and died without any impression from any treatment. For the last four or five months the pallor was the most marked he had ever seen. He was never able to make a satisfactory diagnosis in the case. At times, from vomiting and other symptoms, he had suspected carcinoma of the stomach, but no tumor was discovered.

Prof. Van Antwerp, of the Dental College, being present, was invited to participate in the discussion of *Dr. Kempton's* paper. He referred to negligence in regard to the care of the teeth as a very frequent cause of caries. He thought physicians not careful enough to urge upon those under their care the importance of cleanliness as a means of preserving the teeth.

Dr. Hough said that the statement that pregnancy is a predisposing cause of dental caries, has been generally accepted as true, and he thought without sufficient proof. If we consider the weight of the foetal osseous system, and the time required for its development, we see that it makes but a slight drain upon the system of the mother, and less than is made upon the system of the child during its earlier years when the osseous system is developing rapidly. As to the exciting causes of dental caries, he thought that there was none equal to the use of sugar—as saccharine substances dissolve lime, and the lime salts.

Dr. Kempton said he found the use of sugar and candy to be a frequent cause of decay of the teeth. As to pregnancy, he thought it a well-established fact that it does predispose to caries.

Dr. Tauber.—If the use of sugar is a cause of dental caries, why is it that the negroes of the sugar-growing regions, who eat a great deal of sugar, have such good teeth?

Dr. Van Antwerp said that he had spent some time in the sugar regions of the South, and found that the negroes had not as good teeth as the whites. The front teeth were apparently good, but the molars and bicuspid were often decayed. He does not doubt that pregnancy is a predisposing cause of caries of the teeth.

Dr. Dandridge presented a dura mater removed from a patient who died in the Cincinnati Hospital.

The Cincinnati Medical Society met October, 24th, 1876; Dr. Comegys presiding. The minutes were read and approved.

Dr. Tauber read a paper on "Ozæna Syphilitica." See LANCET AND OBSERVER, page 1064.

Dr. Kearney said the essayist had not referred to constitutional means in the treatment of syphilitic ozæna. If local treatment is all that is required in the management of this disease, it is certainly a marked exception to the usual syphilitic manifestations. The general belief is that constitutional treatment is of more importance than local.

The essayist speaks of the danger of injections carrying discharges to other parts, thereby communicating the disease to those parts. This, he thought, is not a warrantable conclusion. Constitutional syphilis is not auto-inoculable.

Dr. Mackenzie thought constitutional treatment of paramount importance, local treatment secondary. A combination of the two is preferable to either alone.

Dr. Tauber said he did not deny the importance of constitutional treatment, but he wished in his paper to urge more strongly the importance of proper local medication.

Dr. Hough asked whether the disease was classed as a secondary or tertiary manifestation of syphilis.

Dr. Tauber thought it secondary, commencing in the connective tissue, the bone being secondarily affected.

Dr. Zenner asked what is the influence of chronic inflammation of the nasal membrane on the sense of smell.

Dr. Tauber.—The effect is to impair, if not entirely destroy it; the olfactory nerve being affected.

Dr. Mackenzie said inflammation of the nasal mucous membrane would prevent free access of air to the upper part of the cavity, where the sense of smell is located, so that even if the nerves themselves were not affected, there would be impairment of that sense.

Dr. Culbertson said he knew two brothers who never had the sense of smell. One had a son similarly affected. They were not strumous. The defect was not apparently the result of disease.

Dr. Taylor related a case of a man who lost the sense of smell from a fracture of the base of the skull.

Dr. Comegys gave a brief account of a case he saw two years ago in consultation with Dr. Fishburn. The patient, a German, thirty-five years of age, of temperate habits and good hygienic surroundings, suffered with headache and such a degree of vertigo as to be unable to work. There was a tendency to fall forward. This existed to such an extent that even when lying in bed, if he shook his head, he would put out his hands as though he were going to fall. He had frequent attacks of vomiting; had several epileptoid convulsions. Mental symptoms presented at times: Aphasia sometimes present, but no hemiplegia.

Regarding this as a case of congestion of the anterior lobes, it

was treated with those remedies which affect capillary circulation: bromide potassium, ergot, etc. Under this treatment the patient improved, so that he was able to work soon. Dr. C. did not see the patient afterward, but learned from Dr. Kellar, who afterward attended him, that there was marked hyperesthesia, strabismus, and occasional loss of consciousness, followed by sudden death. Fourteen years ago he was struck on the head, and he had constant pain in it ever since.

Dr. Mackenzie said that strabismus was sometimes divergent, sometimes convergent. Nothing abnormal was discovered with the ophthalmoscope. There was no impairment of motion. There was loss of hearing and ringing in the ears.

On removing the calvarium nothing abnormal was discovered, but on removing the dura mater the surface of the brain was exceedingly dry. There was some stickiness, but not adhesion, between the dura mater and arachnoid. On removing the brain the pons varolii and anterior surface of medulla oblongata were found so closely adherent to the bone that they could only be separated by the knife.

On examining the dura mater at that part it was found greatly thickened, the result of pachy-meningitis. The fifth, sixth, seventh, eighth and ninth nerves were all involved in the thickened membrane. In the fourth ventricle there was a large amount of transparent fluid—in all the ventricles about eight ounces. He thought the accumulation due to occlusion to communication between the ventricles and the subarachnoid space. There was no fluid in the cavity of arachnoid. Dr. M. thought the trouble for which Dr. Comegys was called to prescribe for two years ago was due to the disease found on post-mortem examination. The specimen was exhibited to the Society.

Dr. Comegys thought death was due to inhibitive action on the heart from injury to the eighth pair of nerves.

Dr. Stanton presented to the Society a pathological specimen showing extensive ulceration of cardiac extremity and great curvature of stomach, one ulcer having perforated the stomach near the esophagus.

The subject was a negro said to have been forty-three years of age, although he had the appearance of being at least ten years older. Of his early history but little could be ascertained, but for five years past he has been very temperate, and enjoyed a tolerable state of health until about six months ago, when he began to be troubled with dyspeptic symptoms. For three months past he suffered from vomiting soon after eating, at first occasionally, but latterly after each meal. No solid food was taken for more than a month. For two weeks prior to Dr. S.'s first visit he could keep nothing on his stomach, even small quantities of milk or water exciting emesis. About a week before his death he began to experience difficulty in swallowing, and a constant feeling of fullness extending up to the throat after swallowing even small quantities of fluids.

When first visited he was vomiting a frothy mucous; no pus perceptible; no hematemesis; no diarrhoea. He was exceedingly emaciated and weak; no pain, but tenderness over the stomach. All alimentation by the stomach was discontinued except a tablespoonful of milk every two hours, with sub nitrate of bismuth, grs. iij, and pepsin, gr. j. The vomiting ceasing, the quantity of milk was gradually increased, until he could take a gill at a time. Nutritive enemata were given, and for a few days he was much more comfortable, but he finally became discouraged, refused all food by the stomach, and resisted the administration of the enemata. A few hours before his death he was in great pain, no doubt due to the perforation.

Dr. Carson said the diagnosis between ulceration and cancer of the stomach is, in well-marked cases, not difficult, but cases sometimes present in which diagnosis is very difficult.

He referred to two cases which had recently been under his observation for a short time, in which the diagnosis was doubtful.

REPORT OF THE MEDICAL ASSOCIATION OF DELAWARE COUNTY.

By F. W. MORRISON, M. D., Secretary.

Society met; *Dr. Welch* in the chair.

Dr. Carothers presented a femur, tibia and fibula to the Association. The femur belonging to a girl, fourteen years of age, who received an injury by a fall some eighteen months ago. The bone shows extensive necrosis. Amputation was performed seven months after the injury; previous to the operation she was anæmic, had hectic symptoms and was gradually sinking. The case is now doing well.

The second case was a man forty-two years of age, with disease of the limb twenty-nine years; there was necrosis and exostosis of both femur, tibia and fibula. Since the amputation the patient has improved greatly in general health.

Dr. Carothers then gave a written report of a case of rheumatic fever. Patient in feeble health during the past two months. One month after treatment he discovered urine was albuminous; subsequently palpitations; extremities numb; stomach irritable; face swollen; pulse at times 120, but variable; extremities sometimes painful. During first illness the patient had pain in the bowels and limbs, with frequent pulse and fever. The Doctor asks whether this was Bright's disease from the beginning? or was it a sequel following in the wake of rheumatic fevers?

Dr. Islymyer thinks it a case of rheumatic fever, the albumen occurring subsequently. (The discussion then for a time was directed

to the distinction between acute and chronic Bright's disease, and secondly, to the difference between Bright's disease and nephritis. It was advocated that in acute and chronic Bright's disease the chief pathological changes take place in the uriniferous tubules, the alterations in the intervening substance being of a subordinate character; that acute Bright's disease consists of a coagulating exudation, which fills up and occludes the urinary tubules, and may generally terminate in recovery if we can discriminate early, but may end in death in a few days; it seldom becomes chronic. In this form we may find the cylindrical masses of exudation covered with epithelium and blood corpuscles, forming casts of the tubules.

In chronic Bright's disease the epithelial cells become converted into cells of fatty granules, and we have granular epithelial casts, there is degeneration and atrophy, the tubules collapse, reducing the kidney both in weight and bulk.

In nephritis proper, the renal inflammation exists mainly in the scanty connective tissue which binds the tubules together.)

Dr. Welch remarked that while these are changes which the kidney undergoes in Bright's disease, there are in many instances inflammation of the interstitial connective tissue at the same time, and abscesses form; these abscesses enlarge and coalesce, forming a sack of matter; that either the acute or chronic nephritic condition may exist with Bright's disease, and that it is difficult to conceive how one lesion exists without the other; that the hypertrophy resulting from the inflammatory process in either condition, whether nephritic or Bright's disease, necessarily involves the whole structure.

Dr. Williams remarked that persistency of albumen is characteristic of the chronic form of Bright's disease. The history of the case will generally determine its chronic character, as this form attacks persons in a debilitated and depressed condition far more readily than the active and healthy. Acute Bright's disease more generally follows complications of sudden and acute affections.

Dr. McCann.—In this trouble the tendency is generally toward a fatal result, especially is this so in the chronic form; about one-third die of uremic poisoning, and a considerable number of local dropsical effusions. For treatment, a diet, rich in *protein substances*, necessary—to supply the loss of albumen. Tonics, such as quinine and iron, are good; the former acting beneficially on nutrition and the iron in restoring the red corpuscles. Bathing frequently, at a temperature that can be borne without a chill or relaxation, is to be recommended.

Dr. Hyatt thinks diuretics persistently used, on and on, of great benefit in a certain class of patients, and as a single diuretic in these cases he recommends *cream of tartar*; the diuresis, among other indications, relieves the kidneys, by removing the coagulated exudation from the tubuli uriniferi.

Next was a report by *Dr. Westbrook* of irritable uterus with a peculiar pulse, varying in frequency from 80 to 140 beats per

minute. The doctor also reported a recent case of "hydatids of the womb."

Dr. Blymyer referred to three cases of hydatids occurring in his practice of thirty years. There were no serious results attending either of the three cases.

Dr. Welch reported the case of Mrs. M. Since last confinement she had no menstruation, but thought she was pregnant. Her attending physician and counsel, upon examination, concluded she had ascites, was tapped, and a large amount of water drawn off; after which a tumor was discovered, supposed to be in the womb, and thought to be of a malignant growth, from which she died a few weeks after, being tapped for dropsy. There could be no post-mortem obtained.

Dr. Blymyer reported a case of tedious labor recently occurring in his practice, lasting about sixty hours. No ergot was given; think if this drug had been given it would have been fatal to the child. All he did was to have the lady change her position; the child was born living. One of the Doctor's *favorite positions* for tedious labor is, to have the lady sit across her husband's knees.

Dr. Williams recently had a case of tedious labor, gave opium, and was absent ten hours. During this time he was attending to other calls about town and office business; he was summoned something like forty-five minutes previous to the birth of the child. He advises physicians, where they can, to be absent; the patient will do better.

Dr. Potter thinks ergot in protracted cases dangerous to the child.

Dr. Little.—Tedious labor depends upon circumstances: 1st, a partially dilated os; 2d, impaction; but as long as there are intervals between the pains, *no impaction*, no ergot should be given in either case. In impaction instrumental interference is necessary; ergot should be given when the child is soon born, and when in such cases hemorrhage is anticipated. The cases where it is necessary to give ergot are very rare.

Dr. Hyatt does not think position amounts to much; if the female has had her first confinement in a certain position, this is the one she generally adopts in future. The absence of the medical attendant a great portion of the time, during tedious labor, is better for the patient.

Dr. S. C. Dumm.—To be absent during a great portion of the time in tedious labor, might do for an old practitioner who had his reputation established and where the lady and her friends could have confidence, but it would be rather a hazardous business for a young member of the profession; the first thing he knew another M. D. would have the case. The books advise the medical attendant to be within call or be absent but a very short time.

On motion of Dr. Constant the following resolutions were adopted after a full discussion of the subject:

Resolved, 1st, by the Medical Association of Delaware County, that the administration of chloroform and other anæsthetics for extracting teeth and other trivial operations is hereby discouraged.

Resolved, 2d, that in case such services are required and demanded, that such responsibility be not assumed for a less sum than five dollars.

On motion, Association adjourned.

Correspondence.

Chloral Hydrate—Its Use.

MR. EDITOR:

My attention has frequently been called, in looking over some of the medical journals published in this country and Europe, to the ill effects following the administration of chloral hydrate. Recently Dr. Herbert Morgan has reported several cases in which the administration of ordinary doses produced a generalized pain, more intense he says than that of rheumatism. I am of the opinion that much of the evils supposed to arise from the use of this drug are in a great measure imaginary or due to other causes more or less obscure. What I desire more particularly to state is this, that in an asylum practice extending over five years, I have yet to observe a single case wherein I was led to suppose there were any bad effects resulting from the administration of this drug. It has been employed largely in this asylum, both as a hypnotic and quieting agent; in many cases with decided benefit. I can call to mind instances where it was employed in twenty and thirty grain doses, every one, two or three hours, as indicated during the waking period, for months in succession. In one case, that of a male patient, it was I think administered for nine months consecutively, without producing any noticeable bad effects. It has been my practice to give excitable cases, on going to bed, from forty to sixty grain of chloral, as the circumstances might require, continuing this treatment as long as found necessary. I have yet, as before stated, failed to observe any deleterious effects arising from its use, even when prescribed in what would be termed immoderate doses. I would not have the reader infer from this, that no care should be exercised in its use; on the contrary, I would urge the necessity and importance of carefully scrutinizing its influence on the organism.

W. H. DEWITT,
Physician, Longview Asylum.

Reviews and Notices.

Monthly Review of Nervous Disorders and Insanity. By
PROF. D. A. MORSE, M. D.

RECURRENT SENSIBILITY.

Schiff attempted, in 1850, to verify anatomically the teachings of physiology: he cut a posterior root near the ganglion, but beyond it, then observed the corresponding anterior root; at the end of several days he found this root contained altered nervous fibers, and as shown by Waller (*Archives de Tubinge*, 1850). Both concluded these fibers to be emanations from the posterior root, fibers the section had separated from their trophic center.

A little later, Philipeaux and Vulpian made analogous observations upon the facial and hypoglossal nerves. Vulpian says: "Always after ten or fifteen days from the operation we have found healthy and altered nervous fibers at the peripheric extremity." Gubler presents his views, that recurrent sensibility is reflex sensibility; he finds in the subcutaneous cellular tissue cells analogous to the gray cells of the spinal cord—they constitute a diffused spinal cord, and operate as peripheric centers for the transformation of nervous influx; thus, when the anterior roots are irritated motion and pain results, these peripheral cells transform the motor influence into painful sensation. A fine theory, if it had any foundation.

In 1864, June 20, Laugier communicated to the French Academy of Sciences a fact which astonished it and excited doubt. Ten days later Houel presented a similar observation: a nerve accidentally cut had been united, sensibility reappeared. Later, Richet confirmed the statement by indisputable proof—1867.

In the year 1868 the observations of our authors begin. Nerves were divided, after twenty-four days they were removed, the animal being killed, a portion of the peripheric end was placed in a solution of alcohol, then in a solution of chromic acid. After proper hardening they colored with carmine the fibers, when the microscope revealed a certain number of fibers intact in the midst of degenerated tubes. Divided nerves of sensation after several days still exhibited, when pinched, signs of sensibility. The microscope showed this due to healthy fibers that still held connection with their center through peripheral connection—they were derived from a neighboring centripetal nerve.

Arloing and Tripier claim that if after the posterior root of a nerve is divided there is still sensibility when the distal end is pinched, there will be also cutaneous sensibility in parts supplied by the nerve.

In 1869 they published in this journal an article, entitled: *Recherches sur la sensibilité des teguments et des nerfs de la main*. These experiments upon the nerves of the arm and forearm showed that when a nerve of sensation was cut, supplying any particular part, sensation was not entirely destroyed until all collateral nerves were cut, so as to exclude all anastomosing filaments. Sensibility of the cutaneous surface corresponded with the sensibility manifested by the cut end of the nerve, or, as they express it: "the persistence of the sensibility in the peripheric end always coincided with the persistence of sensibility in the integuments. We concluded from this that there ought to exist a cutaneous nervous network, which for each region is always, in the normal state, dependent upon several nerves.

"We add, that we have examined likewise the peripheric end of other branches of the median and cubital, and that in all cases it has been possible for us to find nerve tubes intact. We repeat, also, that our experience upon abdominal nerves have led to analogous results upon the same animals—dogs and cats."

Writers have regarded the persistence of sensibility in the peripheral end of divided nerves to be confined to the spinal, anterior roots, and motor cranial nerves. Arloing and Tripiér declare that it exists equally in the sensitive nerves of the members and cranial nerves. They say, if we will determine the conditions of persistence of individual nerves, next we will have given special rules applicable to the pathology and therapeutics of the yet so obscure affections of the peripheric nervous system. If this be so, then the remark we have quoted of Bernard will prove true, that the phenomena of recurrent sensibility is the most important in the general history of the nervous system.

Arloing and Tripiér, after the general remarks made to which we have called attention, take up the subject of recurrent sensibility as observed in particular animals; the remainder of the paper being devoted to experiments and deductions therefrom.

First chapter—Persistence of sensibility in the peripheric end of the facial will never be wanting in the dog and cat; in the horse and rabbit, on the contrary, it will be doubtful, or even wanting entirely (Cl. Bernard); it will be constantly defective when the section is made above the parotid (Chauveau). As often as the presence of nervous fibers intact in the peripheric end of this nerve has been shown by Vulpian, in the first named animals, no one, to our knowledge, has sought to verify it in the second.

But we can not follow these men in all their experiments. They claim to be the first to have demonstrated the persistence of sensibility in the peripheric end of sensitive nerves.

Among the conclusions at the end of the article, ten in number, we find these: Fifth—In all cases the sensibility of the peripheric end is due to the presence of nerve tubes, of which the relations with the trophic and perceptive centers has not been disturbed by the section. Sixth—The absence of these tubes produces insensi-

bility of the peripheric end. Eighth—The recurrent tubes increase as we go from the nerve-center; their number diminishes as we go from the periphery to the center. Tenth—For several reasons we think that sensibility of the peripheric end belongs to all nerves, and that it exists with all mammifera."

We have made reference to Gubler's theory of recurrent sensibility: that in the subcutaneous cellular tissue there are air-cells analogous to the gray cells of the cord, and that recurrent sensibility is but reflex sensibility.

On page 513 of a recent work by Vulpian: *Lecons sur L'Appareil Vaso-Moteur*, Paris, 1875, the author manifests a strong desire to admit the existence of small departments or vascular tracts in the skin, more or less independent of each other, each of which is subject to the influence of distinct vaso-motor nerves, *or perhaps to that of small peripheral vaso-motor ganglia*. It is upon this theory he explains the configuration of eruptive diseases.

One of the old theories concerning recurrent sensibility was based upon the idea then accepted, that the nerves terminated in loops: the impression made at the anterior root of a nerve ran around this loop and back to the posterior root. The distribution and termination of nerves being better understood this is no longer admissible, nerves in general not terminating in this manner.

There are a great many observations and investigations published recently in foreign journals upon the terminations of nerves. Fisher finds that in mammals, birds, and reptiles, motor nerves end invariably in a terminal plate. This terminal plate is a ramified extension of the axis cylinder, and does not continue in finer divisions into the muscle, but ends in a variety of enlargements.

Dr. Ewald, who has investigated the subject with much care, entertained the same opinion as Fischer, that the terminal plate represents the actual termination of the nerve.

Dalton, last edition: "Lastly, the nerve fiber, at the point of its final termination, is frequently brought into relation with cell-like bodies, which are sometimes regarded as analogous in character to the nerve cells of the gray substance in the nervous centers." Also, "In the muscles, as a rule, each muscular fiber has connected with it at least one nerve fiber, and sometimes more than one. * * * At the same time its medullary layer ceases abruptly, and the axis cylinder spreads out into a thin oval expansion of granular matter, interspersed with nuclei, called the '*terminal plate*,' and lying in immediate contact with the contractile substance of the muscular fiber."

DR. BUCKNILL UPON THE RELATIONS OF DRINK AND INSANITY.

At a late meeting of the Rugby Temperance Association the following speech, says *The British Journal of Mental Science*, was made by Dr. Bucknill, and which excited the attention of Dr. Clouston: "Dr. Bucknill, in seconding the resolution, said the

question of temperance was one in which he took great interest; in fact, no one could fail to do so who had any regard for the welfare of his race or the progress of his country. He had something specially to say upon one point of the resolution, and should therefore pass over the results of drink in brutality, female degradation and reckless prodigality, and apply himself to it as a cause of disease—both in body and mind. It would be difficult, within any reasonable time, for him to give an outline even of his experience as a physician of the insane, with regard to the production of insanity by intoxicating liquors. It not only produced insanity directly, but by its effects upon other organs which react upon the brain, and by a variety of causes—by domestic brawls and discomfort to which it gave rise—and it also produced insanity to a frightful extent by leaving it as a fearful inheritance to the children of drunkards. In the production of the diseases of the body, he feared the common notions of the disease-producing powers of alcohol were too much confined to what was seen in thorough drunkards, in people who abuse drink to such an extent that they frequently become drunk. But physicians know that that was scarcely the greatest evil. A man who never got drunk, who was never, perhaps, drunk in his life, might yet drink too much every day, and so shorten his life and weaken his health, thereby stealing away that which was the laboring man's best possession, and which, too often, the wealthy man could not enjoy—the blessing of healthy existence. He had heard the Rev. Mr. Venables speak with emphasis and enthusiasm of the part which members of his profession were taking in the crusade against intemperance, and he wished he could supplement it by saying that the members of his (Dr. Bucknill's) profession were taking a wise, useful and patriotic part in the attack upon the great vice of our age and country. But he was afraid just now that members of his profession were taking hold of the stick by the wrong end, and were considering drunkenness not as a cause of disease, but as a disease in itself, which to his mind was a very great mistake. If drunkenness was a disease, it was not a vice, and could not be dealt with by education and repression and attempts to reform, but must be dealt with—as, indeed, many of his profession propose to deal with it—by establishing hospitals for what they called the unfortunate drunkard. They said: poor fellow, he can't help it; he must be placed under medical treatment, and have all the comforts and luxuries he wants until he is cured. That was not his view of the case; he believed drunkenness to be a fruitful cause of disease, but not in itself a disease, and he looked upon inebriate asylums as an unfortunate attempt to coddle drunkenness, and patch up a wide and fruitful social mischief. Last year he was in America, and took a great interest in visiting the institutions for the promotion of sobriety. He might mention that at the great Centenary he was in Boston, when a crowd of perhaps 150,000 persons went to Concord and Lexington, very fairly to congratulate themselves

on the victories their grandfathers won over ours. He mixed with the crowd, and must say they were very disorderly—the police had to make themselves scarce—but he did not see, the whole of that day, in that vast crowd, one man the worse for liquor. He visited many of the American inebriate asylums, and he came to the conclusion that the gentlemen confined in them were generally rather proud of their position, and felt themselves interesting subjects of inquiry. So far as he could observe, they were there under a very lazy and shameful pretense of curing a disease which did not exist, by remedies which were not applied. They had only to walk outside the walls of the institution to the nearest liquor-shop, and get as much liquor as they chose to buy, and they could take liquor into the asylum with them. A friend told him that he went into the inebriate asylum on Ward Island, for New York, and visited rooms of four of these unfortunate inebriates, every one of whom was enabled to offer him a choice of spirits. He was not surprised to hear that there was not a very friendly feeling in America between the teetotalers and the supporters of these inebriate asylums. On the previous day he received a report of the American Association for the Cure of Inebriates, and in that he found a letter from Mr. Carsten Holthouse, a physician to a private institution for inebriates in London, who said, with reference to the relations which exist in this country between teetotalers and the promoters of these asylums: ‘As regards the bearing of the temperance world generally toward the undertaking, it is not unfriendly; the more moderate abstainers are decidedly favorable; while the prohibitionists only say: you are beginning at the wrong end—providing for the manufactured article, instead of putting a stop to the manufacture. This section of the temperance people forms, however, but a small portion of the community in this country, and I feel confident that Sir Wilfried Lawson will never get his Permissive Bill carried in the present generation, and I am still more sure that if he succeeded, it would fail in its object and be evaded in every possible way.’

Dr. Bucknill continued: “That if the teetotalers were friendly toward Mr. Holthouse, their friendship did not seem to be warmly reciprocated. These gentlemen were urging very constantly and persistently on the legislature a change in the law, which would enable doctors to treat drunkards as poor diseased people—not as he would deal with them, as vicious people, to be repressed and reformed; or to deal with the question as a great social one, upon which the lines of their educational system should be very much directed. He very earnestly hoped that the Rugby Association, and the great one to which it was allied, would set their faces against the view of drunkenness as a disease. Habitual drunkenness is not a disease, though it causes all manner of diseases; but in itself it is a vice, and ought to be treated as a vice. The habitual drunkard is a man who likes to drink whenever he can, and who can drink whenever he likes.”

These views are entitled to great respect; there can be no doubt that the foolish idea that has gained greater weight since the crusade than ever before, that the poor drunkard is to be pitied—the dram-seller punished; the drunkard is the victim, while the liquor-seller is the guilty, who has caused more drunkards than any other one influence of an intellectual or moral character brought to bear. If silly temperance fanatics would cease to preach that the flower of the land are drunkards—are victimized by the low and degraded seller—instead of teaching that every man is responsible for his own acts, that the low and beastly drunkard is such by his own choice, then one start at least would be made toward reform. No one becomes a drunkard in a day. Step by step do they follow the course, until at length they are held by an appetite which, under present views and teachings, is irresistible. I believe that many drunkards inherit a neurotic state, that puts them at the beginning of life where many drinkers are at the end of many years—a strong thirst and a weak will, a low moral standard, fits them for their often brief career. Yet, how many of these are helped along by the sympathy of friends, who unwisely attribute their course wholly to an inherited appetite. Drunkards should be punished, and temperance lecturers who cite congressmen, lawyers and ministers as the ideal of a drunkard, should be run from the stage. Show the drunkard what a drunkard is and what his associates are, convince him that instead of being an element of genius or intellectual greatness it is an element of moral depravity—the first evidence of mental incapacity.

Again, it is wrong to put the drunkard on a higher level than the drunkard-maker; and last, if not least, temperance should be held by the churches as an integral and essential part of Christian character, and not that wealth in a professed Christian offsets all moral obliquities. Temperance is not a *political* matter. It is a waste of breath to preach temperance to a man whose only idea of it is: what effect will it have on a candidate? Or, by being a temperance man, how many votes will he lose? Members of all churches, as a mass, will vote for any man known to be intemperate, if of their party, before they will vote for a temperate man if of another party. Temperance is a secondary consideration with them, and hence can not and will not assume much importance in politics until professed Christians first reform themselves, and show that with them their profession is not a mockery, but a vital germ that will bear fruit. Here is where the evil, to a great extent, lies. You can only reform drunkards through their moral natures. A reform based only upon a pledge, or even an oath, is worse than no reform, for it is not lasting, and is so seldom kept that through it the cause is brought into disgrace.

The time never will come when liquor will not be made, and no one will live in any future age when drunkards do not exist, except it be the millenium. Why then become fanatics, and attempt to legislate away men's appetites, or attempt any other impossible thing?

Our idea of an inebriate asylum is, that it should combine the essential elements of a hospital and work-house, where punishment and treatment can be so associated that the diseased may be cured by appropriate treatment, if it can be determined what that is, and the vicious punished. One will be found to be as ineffectual as the other, neither will fully meet the expectations of temperance men.

But, we would not extend our own views. The views expressed by Dr. Bucknill called out Dr. Clouston, whose reply, and the subsequent correspondence, is given in the same journal.

Dr. Clouston writes Dr. Bucknill from an opposite view of the subject. We have not space for only a brief notice of it. He says:

"Many thanks for your kindness in sending me the newspaper containing your speech on intemperance. I confess I was startled at the heresies you express on the question; it seemed as if you were pulling down one of the pillars of our temple. So far as our case-books here reveal the facts, the following are the answers to the inquiries contained in your note:

"Intemperance is the 'assigned cause' in thirteen per cent. of our admissions here. * * * * *

"I so far agree with your views in the practical treatment of all such cases, that along with removing temptations to drinking, I always tell the patient (the sinner—I beg pardon), that except he wishes to be cured and tries his best to be cured, no power on earth will cure him. The fact is your 'vice' is always present along with my 'disease,' I yield that point; but I object to your ousting my disease-theory from the case altogether. I don't see that the practice of American inebriate institutions should make us ignore the facts of nature. It is but natural that the first attempt to deal with this most intractable vice-disease should be uncertain in its results. My notion is much more in the direction of setting up Botany Bays for them, where a change of climate and life would combine with the absence of temptation and with hard work in the open air to alter their morbid constitutions. Then you can't deny that half of them are fools from the beginning, and the other half become fools by indulgences. They are usually (I mean my diseased drunkards) facile, sensual, irresolute liars, devoid of the rudiments of conscience, self-control, or true affliction.

I am, my dear Dr. Bucknill,

Yours very faithfully,

T. S. CLOUSTON."

To this Dr. Bucknill replies; of course we omit all but extracts sufficient to define the views of both. Dr. B. says:

"There is one and only one point of fact upon which perhaps we differ—namely, the opinions which have been put forward by medical men on the nature of drunkenness. If you will read Peddie's and Bodington's papers on the subject (read last August, before the British Medical Association, at Edinburgh), you will, I think, see that I was justified in my statement. Dr. Bodington especially is very precise in his declaration that all habitual

drunkenness is a disease, and that there are not two kinds of habitual drunkenness, but that the cases are, one and all, cases of dipsomania—of irresistible, uncontrollable, morbid impulse to drink stimulants. The American Association for the cure of inebriates, composed of superintendents of inebriate asylums, at their first meeting issued a *declaration* of principle, in which the prime article of faith announced was that ‘Intemperance is a Disease;’ and at all of their subsequent meetings their papers appear to have been directed to the support of this dogma. * * * * *

My position is briefly this: that what is called dipsomania is either a vice leading to disease in the ordinary pathological sequence, or, it is an actual and recognizable form of disease of the brain, with evidence of its existence more cogent than the mere desire for drink,” etc.

Dr. Peddie, in October number of the *Journal of Mental Science*, writes Dr. Bucknill as follows:

“DEAR DR. BUCKNILL—I was much surprised on reading your letters to Dr. Clouston, published in the July number of the *Journal of Mental Science*, under head of ‘Occasional Notes of the Quarter,’ to find that you have greatly mis-stated my opinions in regard to ‘The Relations of Drink and Insanity.’

“You ask Dr. Clouston (p. 270) to ‘read Peddie’s and Bodington’s papers on the subject (read last August before the British Medical Association, at Edinburgh), and you will, I think, see that I was justified in my statement,’ which statement is, ‘I am afraid that just now members of my profession are taking hold of the stick by the wrong end, and considering drunkenness not as a cause of disease but as a disease in itself, which to my mind is a great mistake. If drunkenness was a disease, it was not a vice, and could not be dealt with by education and repression and attempts to reform, but must be dealt with—as indeed many of his profession proposed to deal with it—by establishing hospitals for what they called the unfortunate drunkard.’ This, too, you aver to be, without any qualification or reservation, the opinion and practice of certain physicians in America. But I leave them to fight their own battle, and I also leave Dr. Bodington to answer for himself, which no doubt he is able to do. As for myself, I can not believe that you have read a sentence of the paper; or seen my first paper on ‘Dipsomania,’ published in 1858, or my second one in 1860, in the ‘Transactions of the Society for the Promotion of Social Science,’ or my evidence before the House of Commons in 1872, which is fully reported in the Blue Book of that session, otherwise you could never have so much misrepresented my views.

“You take credit to yourself for what you say against Dr. Bodington and myself in the following, not very complimentary, sentences: ‘All I have said and written on this subject has been aimed at the mischief which I thought likely to arise from this unqualified opinion (namely, that drunkenness is a disease in itself). I never supposed that you (Dr. Clouston), or indeed any man, able to bring a practiced habit of thoughtful consideration upon a large

observation of vice and mental disease, could adopt such an opinion without wide reserves and exceptions; but such a man, with his quantitative and qualitative truth, is not likely to appear as an agitator for a great change of law of doubtful upon a platform of disputed fact.' You then agree with Dr. Clouston, saying I think there is very little difference of opinion between *us*, if any. I fully recognize the cases you mention—the men who are 'facile, sensual, irresolute liars, devoid of the rudiments of conscience, self-control, or true affection,' and habitual drunkards as 'diseased drunkards.' But you go on to say, 'these are not the kind of men I have met with in inebriate asylums, nor the kind of men on behalf of whom Dr. Peddie and Bodington advocate an important change in the law of the land.'

"Now what I have to say to this, is simply that my sentiments have ever been such as appear to accord with those you have quoted as Dr. Clouston's, and consequently that we are all three, in truth, agreed as to the persons who may be styled Dipsomaniacs! Your position, therefore, is the very serious and responsible one of aiming, from the supposed vantage-ground of lunacy experience, to raise a cloud of psychological dust to defeat or discourage a highly philanthropic and long-wished-for movement among thousands of medical men and others, for the reformation—it may be, the cure—of those who, if left alone, can not help themselves, and in consequence not merely suffer personally the inevitable consequences which vice, or disease, or both together—acting and reacting on each other—occasion, but entail on families, perhaps through generations, and on society many and deplorable evils. The mischief which might thus arise may be infinitely greater than from a too wide or loose interpretation of habitual drunkenness, even although in some instances there may be circumspection of the liberty, or rather, it should be called the license of the subject, from a course of vicious drinking, which renders him a disgrace to his friends and a pest to society. Thus the line, although not quite correctly drawn at times, may not in itself be a very great evil or social grievance; but with the characters of dipsomania or insane drink-craving which I have drawn in the paper you have treated so ignorantly, and what has been more fully delineated by me formerly, I do not think the distinction between such cases and the vice of intemperance is one of difficult diagnosis. But it is rather too much for you to assume that in this question it is only men engaged in the speciality of the case of the insane who should be listened to as authorities. From the fact that it is illegal compulsorily to control in asylums cases of drink-craving, unless associated with some other marked feature of mental unsoundness which can be made prominent in a lunacy certificate, specialists in lunacy can not come in contact with many instances of genuine dipsomania. They can see only a fraction of such cases as come under the notice of physicians in ordinary practice; and the latter consequently are better able to understand how much in each case is due to physical and

mental malady, how much to moral delinquency, and to say when there might be a reasonable prospect of benefit from strictly enforced and prolonged control, were this obtainable. Even non-professional common sense is not in this matter to be entirely overweighed by any amount of psychological acumen and hair-splitting distinctions. And here let it not be supposed that I advocate for the cure of dipsomaniacs any connection with lunacy arrangements. For reasons now admitted by all, lunatic asylums are not adapted for the reformatory treatment required in such cases; and, on the other hand, the presence of dipsomaniacs has been found very detrimental to the comfortable working of such establishments."

Dr. Peddie then expresses his sense of the injustice he feels has been done his opinions, and adds that he has given more thoughtful consideration to this matter than any one in the profession, and asks Dr. Bucknill to read a few extracts from the paper in question. As this subject has been up in our State Medical Society and will come up again, I present the extracts in the language of the author, believing that the interest felt in the subject by the profession will justify the use of so much space. The paragraphs Dr. Peddie asks Dr. Bucknill to read are as follows:

"That some legislative enactment is required to meet the case of a large proportion of insane drinkers, psychologically termed dipsomaniacs or oinomaniacs—or, popularly, habitual drunkards—will be doubted, I imagine, by few, if any, assembled on this occasion. And I may further assume that little need be here said in considering who are to be viewed as insane drinkers, they may be briefly described as those—1, who inherit the propensity to intemperance; 2, who evince it as the principal manifestation of some form of cerebral disease; 3, who are affected with it as a result of an injury of the head, or severe fevers, or other wasting bodily ailment, mental shock, heavy grief, reverse of fortune, and, indeed, from causes similar to those antecedent some other insanities; 4, those who acquire it through a course of vicious indulgence in stimulants.

"In whichever way produced, or from whatever combination of causes, the distinguishing feature of this malady, in its confirmed state, is total loss of self-respect and self-control under an overwhelming craving for alcoholic drink, although with little or no palatal relish for the same, which must be gratified at any cost, regardless of honor or truth; and, in fact, unaffected by appeals to reason or self-interest, the tears of affection, or suggestions of duty either to God or man.

"I must also assume that it is not necessary at this meeting to point out particularly in what respects dipsomania differs from the *mania à potu*, or, as also called, the *delirium ebriosum*, or acute *delirium tremens*, the toxic mania of alcoholic accumulations, or from the hydra-headed forms of the vice of drunkenness. Of the latter we have abundant examples everywhere around us, in which we have the most marked types of constant tippling, without en-

tire unfitness for the business of life, in persons drinking from facility of disposition, from conviviality, and from the love of drink or love of intoxication, but who have more or less power to abstain when they chose to do so.

“That the phase of intemperance which so utterly annihilates self-respect and the power of self-regulation is indicative of affection of the brain-plasm primarily or from exoteric influence through alcoholic action—in other words, an abnormal cerebral condition, occasioning unsoundness of mind, can not be reasonably questioned; and, as in origin it thus resembles other insanities, it presents also similarities and variety in its course, manifestations, and terminations. Thus, in this malady, the irresistible craving may spring up suddenly, often in successive attacks of singular periodicity, or from the mere taste of anything alcoholic, quickly bringing the system under the full sway of alcoholic poisoning; or it may pass through a slow, stealthy, insidious course, ere the action, if not the nutrition, of cerebral matter becomes changed.

“It is developed in all classes and conditions of society: in the men of refinement and high mental culture as well as in the coarse-minded and ignorant; in the lady of rank and in the tradesman's wife; in all periods of life—in old age, in the adult, and even in early youth. In different constitutions and temperaments manifesting various eccentricities of deportment and habits: wastefulness, destructiveness, perverted moral feelings and impulses, revenge, theft, violence, and invariably mendacity. It is occasionally cut short for a time by delirium tremens or acute mania, or goes on to drivelling dementia, chronic alcoholism, or some other form of insanity, if life be not brought to a close by accident or some superinduced disease. Besides, while this alcoholic diathesis, as it may be called, is transmitted from generation to generation, idiocy, epilepsy, paralysis, and other forms of cerebro-spinal disease are the frequent legacy of drunken parents to their children.

“It is a remarkable fact, too, that if there be any peculiar proclivity, any black spot in a man's moral nature, it is brought out under the weakening and perverting influence of alcohol. Hence, among the criminal class of dipsomaniacs we have a variety of results, and often a most remarkable uniformity in crime committed by the same individual under successive states of inebriety: thus, one individual will invariably be guilty of assault, another of wanton destructiveness, such as smashing windows, another of theft, and not only so, but of stealing very frequently the same sort of articles.

“The mass of cases arising out of intemperance—purely the vice—carry with them their own pains, penalties and checks, and must be judged of by the same peculiarities of each individual case, and left to varied physical, moral, and religious teachings. But there is a link which connects and a boundary line which separates intemperance the disease from intemperance the vice. Here it is that legislative interference of any kind becomes, and very properly

so, most delicate ; and it is here that at first sight most formidable obstacles are supposed to exist against our present proposal. For the very worst cases of dipsomania, in which there is a manifest concrete of the malady of irresistible desire for stimulants, with some other form of mental disease independent of alcoholism, the present law of lunacy clearly provides. The acute mania of drink is also, we would say, a fit disease for asylum treatment. * * * It is not at all desirable that such (insane drinkers) should mingle with other lunatics in public or private asylums, or that a malady requiring special treatment should be brought under lunacy law arrangements."

Dr. Peddie follows them with his reasons why dipsomaniacs should not be associated with other insane. He adds that the alleged failures of American institutions is no reason they should not try the experiment in Great Britain and profit by this experience. He says: "these institutions, too, would require to be well suited in all internal and external arrangements for the peculiar nature of the charge undertaken—not situated in populous districts or in the vicinity of places where alcoholic liquors could be easily obtained, and especially would they require to be under most intelligent and trustworthy superintendents and attendants." He asks the reader to decide whether Dr. Bucknill "has dealt with the present discussion in a fair and right spirit."

To this Dr. Bucknill replies, under date of August 24th, 1876. He says he made reference to Peddie's and Bodington's papers but "little did I expect that this reference would have brought upon my head the accusation from Dr. Peddie :

"*First*.—That I have mis-stated and mis-represented his opinions about insane drinkers ;

"*Secondly*.—That I have ignored them ;

"*Thirdly*.—That I have not read them ; accusations inconsistent with each other, and reminding one of the old pleadings which are now happily abolished, even in the casuistry of the law. It would help me if I knew which count of the indictment contained the real offense, because then, perchance, I might be able to remove or atone for it to a gentlemen who, according to his own statement, has given more thoughtful consideration to these matters 'than any other man in profession ;' 'the felt injustice of having his opinions ignored,' might possibly be capable of wounding his self-esteem. * * If I have ignored his 'sentiments' about dipsomaniacs, how can I have mis-stated them? That is a thing which no man can understand, unless his '*brain plasm*' can unravel a mystery.

"To the third count I must distinctly plead not guilty. Dr. Peddie says: 'I can not believe that you have read a sentence of the paper referred to;' but the truth is that, before I wrote my letter to you, I had read his paper through several times, in the earnest effort to understand it." (This is addressed to the editor of the *Journal of Mental Science*.) Dr. Bucknill discusses the views of Dr.

Peddie, his evidence before Dalrymple's Select Committee of Parliament, quotes also from the paper of Dr. Peddie, refers to the statement that specialists in lunacy do not understand dipsomania as well as the general practitioner, by mentioning that the Committee differed from Dr. Peddie's views or they would not have called Drs. Crichton Browne, Skae, Mitchell, Nugent, Boyd, and Mould, to give opinions before them. Dr. B. used pretty strong language in closing, and refers to the kind of Institutions Dr. Peddie recommends. He says: "when I think, sir, of what the evil of strong drink really is among the lower classes in some parts of your country, and of mine; when I think of what I saw in company with Sheriff Dickson in the drink haunts of Glasgow, on the night of Saturday, the 27th of May last; when I think of the crowd of men and women, many of them infant-laden, whom I there saw steeped in the bestiality of drink, it makes me right angry with these philanthropic *fribbles*, who, with eyes averted from the drunken and debased populace, fondle the subject of the casual rich man's drunkenness, with dainty considerations of how he is to be placed in a golden cage, pleasing his palate in the way of good culinary arrangements, and his captivity made profitable. Let Dr. Peddie carefully examine the wynds of Glasgow, their drink-shops, lodging-houses, and police-cells on a Saturday night, and he will afterward perhaps not think it so easy to perfume hell with rose-water." To get the full benefit and appreciate this discussion the letters should be read; they are of great interest, coming as they do from men eminent in the profession.

The October number of the *Ohio Medical and Surgical Journal* contains a valuable paper upon delirium tremens, read before the Columbus Academy of Medicine by Prof. Starling Loving, M. D. We have treated all forms of delirium tremens with as great success as follows in the practice of any one, without the use of any alcoholic liquor, and in this must differ from the views of Dr. Loving in giving its great importance as a therapeutic agent. He says of it "Perhaps this indication (to prevent death from failure of the heart) might be fulfilled as well by other medicines, as camphor, but the effect of alcohol is so well known, and has been so thoroughly tested, as to cause us to hesitate in substituting for it any thing which we do not know to be equally reliable."

With certain cases in view we could not object much to this, but, in general, alcohol is not required. Aside from this the paper meets our views and will profit all who read it.

In this number of the *Journal* (July, 1876), is also a paper on The Reparative Power in Insanity, by J. A. Campbell. He reports ten cases at length. He says, *in resume*:

Cut Throat Wounds.—In six cases of this nature, treated at Garland's, healing took place rapidly. In two cases the trachea was opened into. In one reported by Dr. Macleod, in the *Journal of Mental Science*, July, 1875, the pharynx was opened into, and the epiglottis divided, and in one case the tongue was cut away from the hyoid bone.

Scalp Wounds.—Excluding general paralysis and epileptic insanity, in the other forms of insanity, while the digestive powers are good and the patient taking a fair amount of nutriment, repair, as regards fractured bones or divided soft tissues, takes place quite as well as in sane patients; in cases of fracture, where there is considerable restlessness, there is more swelling round the fracture and union seems speedier. Considering the difficulty of treating fractures in insane patients, I have been more than once surprised by the excellence of union as regards position and freedom from shortening that I have noticed in such cases.

In epileptics and general paralytics healing-power of skin wounds is at times greater, according to my experience, than even in perfect health, during the period that epileptics are free from taking fits, and while general paralytics are at the stage that they eat ravenously and are getting fat.

In the January number we will review the recent works of Henry Bonnet and Poincare, entitled: *Recherches sur L'Anatomie Pathologique et la Nature de la Paralysis Generale; Considerations sur Le Seige, La Nature, Les Causes de La Folie Paralytique*, by Charles Burlureaux, with numerous communications to foreign journals upon the same subject.

The work of Henry Bonnet is one that should be examined to be appreciated, the work being based mainly upon the microscope; it contains a large number of full-page plates, twenty-four, of which a reviewer can convey little idea. We will do the best we can with the subject, hoping it will interest all who feel an interest in the disease.

A Century of American Medicine, 1776-1876. H. C. Lea, Publisher, Philadelphia, 1876.

Now, that the turmoil of the Centennial year, with its grand Exposition, its great political conventions, its exciting Presidential conflict, is about over, and order has once again struggled out of chaos, it is pleasant to look around and see the many new national landmarks called into existence by the happy event. One of the most charming *souvenirs* of the year, just past, is the volume before us. Although intended as an especial offering to the American medical profession, this work is likely to awaken more than national interest. A record of medical discovery, medical literature, distinguished medical men, of the last hundred years, the work must be regarded as one of permanent value; dealing as it does with the history of medicine in the United States, it will inevitably be used and largely quoted by the future medical histographers of all countries.

As a book it can also be commended to the non-professional public, and we shall be much surprised if its sale does not far surpass the most sanguine expectations of its enterprising publisher. No gentleman's library is complete without it.

Originally published in the *American Journal of the Medical Sciences*, it is likely that the work may not be unfamiliar to many of our readers. Now, however, we have it printed as a separate volume of 360 pages, handsomely bound in cloth. The work is divided into several sections, each section treating of different topics and edited by different writers. As historical reports the various papers composing the work have never been equalled on this side of the Atlantic. The publisher has displayed rare perspicuity in his choice of editors; certainly no more competent group of medical men in this country could have been selected. The following named authors contribute the papers:

SECTION 1. *Practical Medicine*; Edward Clark, M. D., Harvard University.

SECTION 2. *Modern Anæsthesia*; Henry J. Bigelow, M. D., Harvard University.

SECTION 3. *Surgery*; S. D. Gross, M. D., LL.D., Oxon, Jefferson College.

SECTION 4. *Obstetrics and Gynæcology*; T. Gaillard Thomas, M. D., New York University.

SECTION 5. *Literature and Institutions*; John S. Billings, M. D., U. S. A.

The first paper, that of Clark, is written in a clear, concise style, and is extremely interesting. The claim of Drs. Bowditch and Wyman to priority in the operation of thoracentesis is fully vindicated. Dieulafoy's method of aspiration is conclusively shown to be only "a brilliant generalization of the American physician's operation." The *first discovery* of chloroform by an American, Samuel Guthrie, of Sacket's Harbor, New York, is also duly noted.

The second paper, that of Dr. Bigelow, is certain to attract attention in every land under the sun. The long mooted and bitterly disputed question, as to "who was the discoverer of modern anæsthesia?" has, at last, been *absolutely settled*. Dr. Bigelow, the only surviving surgeon of all those present when the first operation under ether was performed, has presented the final solution of the problem that has so long vexed the minds of medical men of all countries. The claims of Jackson, Morton and Wells are fully discussed; the correspondence and evidence of all interested parties duly weighed; and the palm of honor unhesitatingly awarded to Morton. *All who read Dr. Bigelow's testimony on this subject must be impressed by the fairness and justice of his decision.* The name of Morton will go down to posterity, embalmed with that of the immortal Jenner. Nevertheless, there will be many persons of the present generation who still cling to the idea that the glory of the discovery belongs to Wells or to Jackson. It will be a hard matter, for instance, to convince the good people of Hartford, the Charter Oak City, that Horace Wells was not the true discoverer of modern anæsthesia. The statue of Wells, erected in that city,

will not be taken down. Speaking of statues (the Reviewer's digression may be pardoned): some years since a mad wag proposed to erect on Boston Commons a monument commemorative of the discovery, and suggested the placing of the figures of Jackson and Morton on a pedestal, and have inscribed at its base the following simple inscription:

“*To Ether.*”

It was supposed that this delicate piece of punning might answer for a pleasant compliment, and satisfy the friends of all parties. Need we say that this group of statuary has not yet been put in place. The misfortune of having fame suddenly thrust on one, has never found a more melancholy exemplification than in the case of this wonderful discovery. Wells died of insanity; Morton from a stroke of apoplexy, induced by over-excitement regarding the matter, while Jackson, at last accounts, was hopelessly insane. This gift to medical science, which has alleviated the sufferings of myriads of human beings, proved a curse to the three men who first introduced it.

Turn we now to a more cheerful theme. The third paper, that of the distinguished and venerable S. D. Gross, is a scholarly production, characterized by all the force and magnetism that have given the writings of this Surgical Nestor such a world-wide reputation. It is a chronological record of all the improvements in surgery introduced by American physicians, of all the great capital operations performed by American surgeons. The ripe experience of Dr. Gross in all that pertains to surgery, and his wonderful knowledge of medical literature, gives to this particular paper a double interest. It is one of the richest literary treats ever set out before the medical profession of the United States. At the commencement of his paper Dr. Gross justly states, that there is not a man on this continent who devotes himself exclusively to the practice of surgery. In regard to *specialists* of all classes, Dr. Gross seems to entertain but a slight regard. Comparing the *specialist* and the *general practitioner*, he says: “the soundest and, therefore, the safest practitioner is, by all odds, the *general practitioner*, provided he is thoroughly educated and fully up to his work.” We have no doubt that the views of Dr. Gross, on this point, will be fully endorsed by the majority of physicians.

Dr. Gross pays a deserved tribute to the memory of Ephraim McDowell, of Danville, Kentucky, the first operator for ovarian tumor; also, to William Gibson, of Maryland, who was the first surgeon that tied the common iliac. Valentine Mott, the first surgeon to ligate the innominate artery, comes in for a handsome compliment. Physick, Warren, Dudley, Dorsey, Darridge, Nathan Smith, McClellan, Randolph, Mutter, Brainard, Gilbert, Hayward, Norris, Stevens, Kissam, Rodgers, Watson, Twitchell, Crosby, Knight, Goldsmith, Jameson, Flint, Parrish, Hartshorne, Horner, Mussey, Blackman, Ackley, Pope, Bush, Goddard, and a host of

other surgical celebrities receive complimentary notices. A full history of the rise and progress of surgery in the "States," from Colonial times up to the present epoch, is given. All capital operations performed in the various fields of medicine, together with biographical sketches of the operators, are included in the paper. The future teacher of surgery will find this part of the work especially valuable as a ready reference. Dr. Gross is to be highly praised for the excellent taste and good judgment displayed in his arrangement of material in this exceedingly readable article.

The fourth paper, that of Dr. T. Gaillard Thomas, traces the history of obstetrics and gynæcology in the United States. A full record of the operations of ovariectomy is given, and again the memory of Ephraim McDowell receives another tribute. John L. and W. L. Atlee, Nathan Smith, Peaslee, Kimball, and Dunlap, of Ohio, the earlier ovariectomists, are duly noticed. It is perhaps an interesting piece of news to our Ohio readers, to know that Dr. Alexander Dunlap, of Springfield, has operated 106 times, with 27 deaths and 79 cures. Dunlap's first operation was performed on September 17th, 1843.

The more distinguished medical writers on the subject of obstetrics come in for handsome notices: Dewees, Hodge, Meigs, Miller, Francis, Bedford, Clark, Sims, Emmet, Storer, Elliot, Wright, are among the number. As a matter of especial interest to our local readers, we may state that Dr. Thomas insists that Dr. Wright's operations of "*bimanual version*" should hereafter be designated as "Wright's method." Dr. Thomas fully vindicates the claim of Dr. Wright of Cincinnati, and demolishes the claims of Braxton Hicks of London.

Handsome compliments are paid to numerous other American writers who have enriched obstetrics by literary contributions. This paper of Dr. Thomas is written in the author's most fascinating style. It reads as charmingly as one of his lectures sounds, and is a fine piece of literary work. An amusing typographical error occurs on page 250 of this paper, as the following quotation will show. "In 1846, Willard Parker created a *recto-vaginal* fistula in the *male* for the removal of stone, and being struck by the relief afforded to a cystitis which existed, he subsequently repeated the operation for the relief of the latter condition in men," etc. The publisher, who is solely to blame for this error, had better use the term *recto-vesical* in the next edition of the book; however this is hypercriticism.

The fifth and last paper of the series, that of Dr. J. S. Billings, possesses an extraordinary degree of interest, inasmuch as it treats of many matters of unusual importance concerning the medical history of Cincinnati. Dr. Billings' long residence in the Queen City accounts, in part, for his familiarity with our local "medical politics," if we may be allowed to use such an expression. The good old "Ohio College" comes in for more than a generous share of notice, and its *alumni* must feel justly proud that in the

medical history of the United States their *alma mater* occupies such a conspicuous position. May we hope that she will ever maintain her old time degree of fame, and that her ancient glory may never fade. Among the illustrious authors whose names have adorned the college scroll of Professors, the following are especially complimented :

"Among the few original works in the department of surgical anatomy should be mentioned those of John D. Godman, a native of Annapolis, Md., 1794, 1830. Poor and almost friendless, but urged on by an unquenchable thirst for knowledge, he persisted in obtaining an education in spite of the greatest difficulties and discouragements, and at last took the degree of M. D., at the University of Maryland in 1818. In 1821 he went to Cincinnati, to accept a chair in the Medical College of Ohio, but dissensions in the faculty induced his speedy resignation," etc. "Dr. Godman was an anatomist by nature, and though the necessities of bread-earning prevented him from accomplishing any great work, his treatise on the fascia and his contributions to physiological and pathological anatomy are really original and valuable productions."

Of the few great authors on *materia medica*, Eberle and Harrison are mentioned; of the latter Dr. Billings remarks: "Dr. John P. Harrison was born in Louisville, in 1796; studied under Dr. Chapman, and graduated in medicine in 1819. He was Professor of *Materia Medica* in the Cincinnati College from 1836 to 1839. In 1841 he accepted the same chair in the Medical College of Ohio, in 1847 was transferred to that of Theory and Practice, and died of cholera in 1849. He was one of the editors of the *Western Journal of Medicine*, and of the *Western Lancet*, now LANCET AND OBSERVER; published a collection of his Essays in 1835, and his "Elements of *Materia Medica* and Therapeutics" in 1846."

Of John Eberle, M. D., the author remarks: "He was of German descent, and a native of Pennsylvania. After graduating in medicine, in 1809, he went into politics, edited a newspaper, acquired intemperate habits, and became a bankrupt. Commencing life again in 1825, he took the chair of theory and practice in the Jefferson School, which he held until 1831, when he removed to Cincinnati, and became connected with the Medical College of Ohio. In 1837 he removed to Lexington, Ky., to accept a chair in the Transylvania School, but could not lecture and soon died. His treatise on the Practice of Medicine, first published in 1829, was in its day a very popular work—in part at least, because of the formulæ it contained," etc.

Of Dr. Daniel Drake our author states (speaking of his great work: "Diseases of the Interior Valley of North America"): "This work is the "magnum opus," and result of the life-long labor, including extensive personal observation, literary research and natural reflection of a man whose fame, as compared with that of his contemporaries, will probably be greater a century hence than it is to-day; and whose name, even now, should be among

the first on the list of the illustrious dead of the medical profession of the United States," etc. Dr. Billings gives an interesting biographical sketch of Dr. Drake: "Commencing the study of medicine at sixteen, he attended his first course of lectures in 1805, and his second in the University of Pennsylvania in 1815, at the end of which he graduated. He was Professor successively in the Transylvania School, the Medical College of Ohio, a second time in the Transylvania, the Jefferson School, the Medical Department of Cincinnati College, the University at Louisville, and again in the Medical College of Ohio. He died November 6, 1852," etc.

Of Dr. L. M. Lawson our author remarks: "He was a native of Kentucky; born 1812, died 1864. His early education was defective. At the age of twenty he was licensed to practice, but it was not until 1833 that he obtained his diploma from the Transylvania School. In 1844 he was elected to the Professorship at Lexington; from 1847 to 1853 he filled the chair of Materia Medica in the Medical College of Ohio, and then became Professor of Principles and Practice of Medicine. During the winter of 1859-60, he lectured on clinical medicine in the University of New Orleans. He founded, and for a long time conducted, the "Western Lancet," in which many of his lectures were published," etc. The great work of "Lawson on Phthisis" receives a highly complimentary notice.

Of Dr. John Bell our author says: "Dr. John Bell, a native of Ireland; 1796-1875. He came to this country with his parents, who settled in Virginia in 1820, and graduated in medicine in the University of Pennsylvania, after which he lectured for some years in the Philadelphia Medical Institute, and for two years in the Medical College of Ohio. His treatise on Baths and Mineral Waters *is the only* comprehensive and respectable treatise on this subject published in this country." That brilliant surgeon, the late Dr. Geo. C. Blackman, formerly Professor of Surgery in the Ohio Medical College, is ranked with Mott, as the medical editor of Velpeau's Surgery, and also highly complimented as an author on military surgery. The want of space forbids the further mention of the pleasant biographical sketches, with which the paper abounds; suffice it to say that this part of Dr. Billings' work is more than replete with interest. It is with a sigh of regret that we cease our cullings from this part of the book, but the margin of a reviewer is necessarily limited.

Dr. Billings indulges in some sharp, but deserved, criticism of American medical journalism. Speaking of those which are mainly "devoted to advocating the interests of a school, and attacking rival institutions, and which are, to use Carlyle's phrase, "wind-mills put out to catch or take advantage of the wind of popular favor." Our author says: "These journals sometimes contain valuable reports of cases obtained from the *college clinics*, but the *personal editorial element in them is usually in excess*, and they are of interest to

but a *small local circle*." Dr. Billings is disposed to be complimentary to the "LANCET AND OBSERVER," and mentions it somewhat at length: "The Western Lancet, edited by L. M. Lawson, continued from 1842 to 1857, when it took the name of the "Cincinnati Lancet and Observer," which is still flourishing," etc. Early medical journalism in the West is treated in full, and is very interesting.

Of the medical libraries of Cincinnati, Dr. Billings says: "The City Hospital has a fair collection. The Mussey Medical and Scientific Library, at present, is a special deposit in the Cincinnati Public Library, and contains about 4,000 volumes and 2,000 pamphlets."

But the review is becoming too long, and we must drop our pen, only saying, in conclusion, to our numerous readers, buy a copy of this book if you wish to pass your leisure hours perusing something intensely interesting and, at the same time, wonderfully instructive.

T. C. M.

Medical and Surgical Memoirs; containing Investigations on the Geographical Distribution, Causes, Nature, Relation and Treatment of Various Diseases. By JOSEPH JONES, M. D. New Orleans, 1876.

Part first of a proposed series of three volumes is before us, containing 820 pages of closely printed matter. In the limits assigned for review it would be an utter impossibility to do justice to this superb work. Dr. Jones has long been known to the American medical profession by reason of his numerous and extremely valuable contributions to science. A hard-working, pains-taking writer; an original investigator; an author who has closely cultivated the literature of his profession, with a rich personal experience, derived from years of medical service in family practice, hospital, and in the tented field. It would, indeed, be strange if this last great work of Joseph Jones did not command more than ordinary attention. *We consider this work, in many respects, the best American medical production of the last twenty years;* in fact, the continuation of Daniel Drake's "Diseases of the Interior Valley of North America." When we make this statement we pay our author the highest compliment that can be paid to an American physician.

Volume first contains: an "Introduction to the study of the disease of the nervous system; investigations on traumatic tetanus, epilepsy, paralysis and cerebro-spinal meningitis; clinical observations on diseases of the lymphatic and circulatory systems, and of the liver and kidneys; investigations and researches on pneumonia; observations on diseases of the osseous system. Illustrated by 800 cases of disease, 400 physiological experiments, 95 analyses of the blood and urine, and 60 tables illustrating the symptoms and mortality of diseases under different modes of treatment, and in differ-

ent climates." Volume second will contain: "Monographs relating chiefly to endemic, epidemic and contagious diseases; embracing malarial fever, yellow fever, typhoid fever, small-pox, cow-pox, syphilis, measles, cholera, cholera infantum and dysentery." Volume third will embrace the diseases and accidents of armies: "Erysipelas, hospital gangrene, pyæmia," etc., etc. The scope and grandeur of the work undertaken by Dr. Jones will be seen from this statement: The first volume, just published, has more than three times the amount of reading matter contained in a volume of "Ziemssen's Cyclopedia," and is furnished at about the same price. As regards quality and value, we infinitely prefer the more recent work of Jones. *No American physician's library is complete without this book*; in fact, it is a whole library in itself. When the three volumes are fully completed, we shall probably give the work a critical review; but, if the first volume is a fair sample of what the forth-coming volumes are to be, we can only say that *the work is above criticism*. Volume first is sent to any part of the United States or England, postage paid, for \$5 50. The author is his own publisher; his address: "Joseph Jones, M. D., Box 1500 P. O., New Orleans, La."

We can say to the readers of the LANCET AND OBSERVER that this is the *cheapest* medical work ever published in the United States, at the same time one of the most valuable. T. C. M.

Chemia Coartata; or, The Key to Modern Chemistry. By A. H.

KOLLMYER, A. M., M. D., Professor of Materia Medica and Therapeutics at the University of Bishop's College; Professor of Materia Medica and Pharmacy at the Montreal College of Pharmacy, etc. Philadelphia: Lindsay and Blakiston. For sale by Robert Clarke & Co., Cincinnati, O. Pp. 111. Price \$2 25.

The author in his preface says, "the present work on modern chemistry has been written and published in the hope that it will prove useful to all who, from business occupation or from any other circumstance, may not have sufficient time at their disposal to consult those more voluminous works which have already contributed so much toward the advancement and improvement of this branch of science. The main object of the author has been to compress into as small a space as possible everything connected with the study that deserves attention, and to give no more explanatory matter than is actually required to render each subject perfectly intelligible.

The work is mainly a tabulated syllabus which altogether is conveniently arranged and deserves favorable mention. In our opinion, however, its greatest use will be as an adjunct to other courses of study rather than as a substitute. In the former capacity

it may no doubt be made very useful. As a substitute for larger works it will probably be more useful to teachers than to students.

The typographical work is excellent in the fullest sense of the term. We do not know who is responsible for the provoking error on page 79, where the general formula of the *paraffines* is made C_nH_{2n+2} instead of C_nH_{2n+2} .

It is to be regretted that after using the term *atomic* weight on page 2, the word *atomic* is abandoned and combining weight substituted. The terms are not always synonymous.

The author has given no reason why the formula of the oxygenated chlorine acids and some others are given in doubled molecules, as $H_2Cl_2O_6$ instead of $HClO_3$. Even the formula for chlorate of potash is given as $K_2Cl_2O_6$. Until it can be shown that a molecule of $KClO_3$ occupies one volume only, we know of no reason for doubling its formula.

The book contains two features of particular value; namely, the compiled tables of hydro-carbon derivatives and the table of poisons with their antidotes and treatment.

Turning to the cyanogen compounds we observe the formula $K_3Fe^{III}Cy_6$ for "red prussiate of potash," or potassic ferri-cyanide, which could only be true if the atomic weight of iron were 28 instead of 56 as the author correctly gives it. J. B. H.

Chemistry: General, Medical and Pharmaceutical; including the Chemistry of the United States Pharmacopœia. A Manual on the General Principles of the Science, and their Applications in Medicine and Pharmacy. By JOHN ATTFIELD, Ph. D., F. C. S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc., etc. Seventh Edition. Revised from the Sixth (English) Edition by the author. Philadelphia: Henry C. Lea, 1876. For sale by Robert Clarke & Co.

The favorable and somewhat extended notice of the sixth edition of this work, given by us in the *LANCET AND OBSERVER* of March, 1874, might be very deservedly repeated in reference to this seventh edition, which has been, in several respects, improved. We fully sanction the author's efforts to combine practical with theoretical study, or rather to make the latter dependent upon the former. The term *official*, instead of the less appropriate term *officinal*, is very properly used in this work for such articles as are authorized by the pharmacopœia. Those who use this book should not fail to notice that the chemistry of each body is given in different parts of the work, according to the various practical relations it sustains. For example, in treating of *chlorine*, though there are but two and a half pages given to its first brief consideration, the subject is further considered at pp. 31, 110, 264, 269,

271, 272, 289, and 550, as shown by reference to the index. The very full index (54 pages) which the author has given us, is a model that other writers would do well to imitate.

In its terminology the work is fully as advanced as it should be for the class of readers for which it is designed. In a few instances, perhaps, it may be doubted whether the author's terms will ever be generally adopted, *e. g.*, in the use of the terms "basyulous" and "acidulous," as applied to positive and negative radicals. Altogether, the work deserves to be highly commended. J. B. H.

A Practical Treatise on the Diseases, Injuries and Malformations of the Urinary Bladder. By SAMUEL D. GROSS, M. D., LL.D., D. C. L., Oxon. Third Edition Revised and Edited by SAMUEL W. GROSS, A. M., M. D. Henry Lea, Philadelphia.

The new edition of this really valuable work will be heartily welcomed by the profession. The former editions of this book are so well known in this country, that comment would only be superfluous. In the present volume its editor, Dr. S. W. Gross, has added two new chapters, one on "Tumors of the Bladder," and one on "Tumors of the Prostate Gland." The book is fully up to the times, and we know of no monograph on the subject of urinary diseases that is fuller and more complete than the one under notice. It is handsomely illustrated with numerous wood-cuts, and contains almost 600 pages of instructive reading-matter. The low price at which it is published places it within the reach of all practitioners.

T. C. M.

Translations of the Medical Society of Pennsylvania. 1876.

It is with more than an ordinary degree of pleasure that we peruse the Transactions of the Pennsylvania State Society. It would be better for the other State Societies of the Union to pattern more closely after that of the Keystone State, provided such a thing were possible. The plan adopted of causing each County Society to report to the State Society is one that should be adopted in all Central Societies, and has immense advantages over the ordinary method pursued. By the Pennsylvania plan one is able to tell at a glance the sanitary condition of the various counties in the States; the prevalent annual diseases, and the mortality from the same; the epidemics of the year previous, and their severity in different localities; the seeming influences of highlands or lowlands, temperature, etc., on the type of various diseases, etc. Besides, reports coming from County societies are usually prepared with more care than the random and trashy volunteer papers, with which the transactions of most State societies are usually weighted.

The reports of sections on surgery, obstetrics, etc., should be placed in the hands of persons who can do creditable work, and not, as is generally the case, in the hands of those who neither care nor intend to make an elaborate report. The reports of the various sections in the Pennsylvania Society of 1876 are in striking variance with those of other societies; the addresses being of more than an usually high standard. We congratulate the Society on its Centennial Year Report.

T. C. M.

Epitome of Skin Diseases with Formulæ. By TILBURY FOX, M. D., F. R. C. P. Henry Lea, Philadelphia, 1876.

As a small work for ready reference, containing as it does in a few pages all we know regarding the diagnosis and treatment of skin diseases, this little book is unsurpassed by anything of its kind we are acquainted with. The reputation of the author in this special department is so well established that his name is a sufficient guarantee as to the value of the work.

T. C. M.

A Report on the Death Rate of each Sex in Michigan. By HENRY B. BAKER, Registrar of Vital Statistics of Michigan.

This laudable attempt of Dr. Baker to construct a life table for the State of Michigan, based on the United States census returns of 1870, is deserving of all encouragement; nevertheless, we fear that his tables are neither accurate or reliable. The utter impossibility of framing a life table for any part of the Union, with perhaps the exception of one or two of the so-called New England States, is at once apparent to those in the least familiar with the loose and careless system of registration followed in most localities where State Boards are supposed to exist. This remark does not apply to the local Health Boards of the larger cities in the United States, for, as a rule, the plan of registration followed in cities of the first class is about as complete as can be made. If Dr. Baker had based his Michigan life tables on the vital statistics accumulated for a number of years back by the Michigan State Board, his paper would have been more interesting. While the United States Census Reports of 1870 are valuable as affording a rough approximation of the comparative prevalence of certain types of disease in different localities and the mortality from the same, they are valueless when any attempt is made to frame a life table; for the reason that the ages of the decedents in the majority of instances are filled in or guessed at by those intrusted with the collection of statistics. There are many points in Dr. Baker's paper that might be sharply criticised; for instance, on page eleven, our author states, "in looking about for some proper standard of comparison, the life tables con-

structed by Dr. Farr, for the "healthy districts" of England, have been selected for several reasons: the two localities are not dissimilar as regards average temperature, moisture of the atmosphere, etc.; both are nearly surrounded by water, the inhabitants number about the same," etc. Here we have a positive assertion in regard to temperature. Let us select at random from Blodget's climatology the mean temperature at a few prominent points in Michigan and England and compare them :

MICHIGAN.		ENGLAND.	
Ann Harbor, mean yearly.....	47° 8	Penzance, S. W. England	51° 8
Detroit	47° 2	Plymouth	52° 1
Fort Gratiot	46° 3	Chiswick, near London.....	49° 8
Mackinac.....	40° 6	Tottenham	49° 1

These afford a fair comparison of the difference, that is as well marked by month and quarter as it is by the annual mean. Take the next assertion as regards moisture, and compare the mean annual precipitation of rain and melted snow at different points in Michigan and England :

MICHIGAN.		ENGLAND.	
Detroit.....	30.07 inch., mean annual	London	20.69 inches.
Mackinac ..	23.87 " "	Hereford, Central E....	20.68 "
Fort Brady.	31.35 " "	Penzance, Cornwall.....	44.75 "
Fort Gratiot	32.62 " "	Oxford.....	27.10 "

Dr. Baker should be more careful in his assertions. In conclusion we may say, the paper contains much that is interesting. T. C. M.

Uterine Versions and Flexions. By EPHRAIM CUTTER, A. M., M. D.
James Campbell, Publisher, Boston, 1876.

The title of this book should have been "Cutter on Pessaries." The author states in his preface: "as said in the first edition, this is not intended for a piece of fine writing." The justice of the author's apology is at once apparent if the book be perused. The author informs his readers that he has been "pained to learn that some instrument-makers have produced" his pessary, "leaving out the very features" he "most values." This is sad. Instrument-makers should be more careful about Cutter's Pessaries. Dr. Cutter informs us that he did not protect his pessary by a patent. He should read Marion Sims' address before the American Medical Association, 1876, for consolation's sake, and curse the day that the Code of Ethics was ushered into existence. The book is illustrated by numerous engravings of Cutter's Pessaries, Cutter's Uterine Scarificator, Cutter's Invalid Chair, etc. The chair we see is patented; we regret to see a patent on the chair and not on the pessary. We only wish Cutter's royalty upon his pessary was so

heavy that only *royalty* could afford to purchase it. Not that Cutter's Pessaries are not as good as any other pessaries, but we think the pessary business a little overdone. With the advent of the *uterine specialist* the normal uterus and vagina have vanished, thanks to "medical progress," viewed through a speculum. We regret to state that we can not ask our readers to purchase the book.

T. C. M.

Remarks on the Extent of Swamp Lands in the United States. By J.

M. TONER, M. D. This is the introductory address before the American Public Health Association, 1875.

It is an exceedingly interesting and readable paper, written in its author's well known plain and lucid style. Dr. Toner has the happy faculty of condensing more valuable points within a small compass than almost any writer we know of; this paper is entirely free from that verbosity which so mars the usual run of introductory addresses. We shall file it away for future reference. T. C. M.

Walsh's Physician's Call-Book and Tablet. Washington, D. C.

A very well arranged physician's call-book. It is neatly bound in durable leather; compact and easily carried.

Hale's Physician's Visiting List and Complete Pocket Record. Anna, Ill.

A well arranged and convenient book for physicians, combining simplicity and utility. It is handsomely bound, and like all other books of the kind, may be said to be *one of the best*.

Walsh's Physician's Combined Call-Book and Tablet from 18— to 18—.

By RALPH WALSH, M. D., Philadelphia. J. B. Lippincott & Co.

This is one of the most, and indeed *the* most convenient Call-Book we have ever seen. It is of a good shape for the pocket, as well as for writing prescriptions upon. One of its chief advantages is that it is adapted to any time, to any year or number of years, and for any number of patients. It is so arranged that the patients name and address appear on the same line with the visits made to him during the week, an advantage every hurried practitioner will at once see and appreciate.

The printed matter contained in this Call-Book contains numerous very useful tables, among which we may mention: "table of

number of drops in a fluid drachm," a graduated table for administering laudanum; poisons and their antidotes; formula and doses of medicines for hypodermic injections, also for inhalations; formula for suppositories; pessaries; methods of examination of the urine; treatment of asphyxia for drowning, etc.; directions for making post-mortem examinations; list and doses of important remedies; relation of metrical weights and measures to weights and measures of the United States Pharmacopæia, etc., etc. We most cordially recommend Dr. Walsh's Call-Book.

Errata.

MESSRS. EDITORS: In November issue of LANCET AND OBSERVER, in article No. 6, are several typographical errors that I would like you to notice in the December number:

On page 989, seventh line from top, read *gaze* for "page."

On page 990, second line, read *secret* for "select."

On page 990, seventh line, read *lend* for "lead."

On page 990, twenty-fourth line, read *mark* for "work."

On page 990, thirty-seventh line, read *consultee* for "consulter."

On page 990, forty-first line, read *consultee* for "consulter."

On page 991, eleventh line, read *consultee* for "consulter."

On page 992, next to last line, read *gainful* for "painful."

Respectfully,

CHILLICOTHE, O., Nov. 10, 1876. G. S. FRANKLIN, M. D.

Selections.

The Sanitary Dangers Incurred by our School Children—How they are to be Met—Broad Charges and Sound Suggestions.

The following is the concluding report on behalf the Committee on Legislation to Promote the Health of School Children, by Dr. R. J. O'Sullivan, as read before the New York Medico-Legal Society:

Your Committee, having in the first portion of their report discussed fully the sanitary defects of the public schools in this city in relation to the air space required, &c., deem it unnecessary

to rehearse the conclusions arrived at, as they have been published in full in the official organ of the society. The Committee will, therefore, content themselves on this occasion in stating the progress made, and making such other suggestions as in their judgment may tend to mitigate the evils to which school children are subject, and place the unsanitary condition of these schools clearly before the public.

The efforts of this society to promote the health of school children have attracted considerable attention and have elicited favorable comments from educators interested in the success of our schools and the health of the pupils. At the last meeting of the American Social Science Association, at Saratoga, reference was made in laudatory terms to this Society in the action taken on sanitary reform in schools. A member of the Committee was invited to participate in the proceedings and open the discussion on diseases of the school-room. It is scarcely necessary to say that no more important subject has engaged its attention, as it concerns the well-being of society and the physical condition of the future citizens of this great metropolis. It is plain to the observer of passing events that society in our midst is in a state of transition, and that the physical condition enters largely into its causation. We see the evidence of this in various ways—notably irritation of the brain and incidental diseases—nipping in the bud in the prime of life our most prosperous citizens, cutting them off from society and lowering them into a premature grave. This is no imaginary picture. Look around us in public assemblies and see in those scarcely entering middle life the evidence of physical decline, the prematurely bald and gray, the facial muscles photographing the wearied brain and overtaken nervous system. It is stated by competent authority that “200,000 persons are annually slaughtered in the States by preventable diseases.”* What the percentage of school children may be we can not say with any degree of accuracy, but it is fair to conclude that it is large. The forcing, cramming system in our schools and colleges gives no assuring indication of a change for the better in the generation that is to follow us. If we can not expect a change in the condition of the adult population, let us by all means turn our attention to the little ones, and save the youth of the land from the dangers that threaten them unless sanitary reform in the schools be instituted. Among the most urgent requirements of the common schools of this city are inexpensive primary schools, with am-

* Report of Dr. I. Bowditch at the International Medical Congress.

ple play-grounds, sufficient class-room and necessary air-space. The present plan of construction of schoolhouses is defective in many respects. There is too much ornamentation and attention given to mere appearance, entailing enormous expense. The assembling room, only used for a short time during the opening and for exhibitions, take up too much space, to the great detriment of class-room accommodation, which is especially noticeable in primary departments, where there exists the greatest need of class room. Owing to this cause the younger children are packed closely in the galleries or consigned to the basement or ground class-rooms, which are generally excessively overcrowded, badly ventilated and in other respects unfitted for class purposes. The dangers to which pupils are exposed will be more readily understood when it is stated that these class-rooms are lighted from the yard and are in close proximity to the water-closets, surrounded in some instances by huge tenement houses and separated only by a few feet from the gallery or infant classes, which average seventy-five pupils—commonly two classes occupying this space—packed as closely as it is possible to do, there being but one intermission of twenty minutes during the morning session allowed these hapless little ones. It is no wonder that these schools should be a fruitful source of the propagation of contagious diseases. These are the dark spots in our school system, the canker that is gnawing its vitality and undermining its strength. It is to eliminate this excrescence, to heal the corroding sore, and induce healthy granulation; in a word, to rejuvenate this admirable but badly managed system of public education, viewed from a sanitary standpoint, that we strive for and labor earnestly, having an abiding faith that when the public understand the subject sufficiently the evils complained of will be corrected, and health in schools an established fact, and not the mere theory so frequently referred to, but never realized. These remarks are made to elucidate a point having an important bearing on the subject we are now considering. It is hoped that a slight digression will be pardoned while a brief allusion is made to the compulsory education law now being enforced in this city. Upward of \$4,000,000 are asked by the Board of Education for school purposes for the ensuing year. Among the items are \$25,000 incidental expenses for the enforcement of this law, and \$100,000 for a reformatory, where children of the required age who do not attend school are liable to be committed. There can be no question, we apprehend, as to the necessity of this law or its enforcement under proper hygienic conditions, which no doubt was the

intention of the framers of the law. During the past month several thousand children were refused admission to the schools, owing, as alleged, to insufficient school-room. This applies mainly to primary departments. It is to these departments and schools that these children are compelled to go, according to this law, regardless of sanitary requirement or class-room accommodation, or, failing to do so, must go to prison. The injustice of enforcing this law, under these conditions, must be plain to any one possessed of common sense. Indeed, it may be doubted if the higher courts of justice would willingly enforce a penal law at the risk of the health or the lives of those who can not obey because room is not provided for them. It is obvious that it is the duty of the State, or school boards acting under its authority, when it offers the advantage of a common school education to those within its jurisdiction to provide school-houses with ample accommodation and sufficient floor and air-space, and to conserve in every reasonable way the health of the pupils. If, on the contrary, the schools are in a condition detrimental to health (as can easily be proved to be the case in the schools of this city), school boards are derelict in their duty, and fail to comply with one of the most important requirements of their office. School-houses where young children are herded and forced to sit for hours in a vitiated atmosphere, in constrained positions, do not come up to the standard. It would be cruelty to animals—not to speak of tender little ones—to add to their torture by increase of numbers without increased accommodation. The idea of compulsory attendance under these circumstances is preposterous and at variance with all wise and beneficent laws and the common rights of humanity. We do not desire to be understood as disparaging in any way the present Board of Education, as they are only complying with the requirements of the law. We have no doubt, from the excellent disposition they have lately manifested in reducing the attendance in the more crowded departments, that they will give further attention to this matter, by the adoption of such measures to improve the sanitary condition of schools as are within their jurisdiction and means. We would respectfully suggest short sessions in the lower grades of primary departments and school as a measure which would be beneficial to pupils, as in returning to school after the noon session in stormy weather they are exposed to catarrhal affections which are of frequent occurrence in this variable climate, especially during the fall and winter months. As to the feasibility of this proceeding, as to whether it would interfere materially with class exercises and the re-

sults expected of teachers as determined by their annual examinations, we have asked the opinion of some of the most experienced teachers, and have invariably had their opinion both verbally and in writing that one session a day would be ample, and would not prevent the best results of school-work. We are aware that the State law requires two sessions; but the Board of Education possesses a discretionary power in this matter. For instance, it has lately given orders to the schools to dismiss on rainy days at two o'clock, whereas the afternoon session is not concluded until three o'clock or about that time. Now, if the School Board has power to make this regulation, it certainly has the power of dismissing at any time after entering the second session, say from ten to twenty minutes after its commencement.

In answer to an inquiry Dr. O'Sullivan received a note from one of the most respected principals, a gentleman of very large experience, who has for more than thirty years occupied that position. He says: "The sanitary condition of our public schools, a subject to which you have devoted much of your thought and time, is now engrossing a large share of public attention. A movement has undoubtedly been made in the right direction by limiting the number of pupils to the area of class-room accommodation. Still, many of our school buildings, especially the primary departments thereof, will be found far from wholesome. I remember that years ago you were an advocate for shorter sessions for our primary schools. It seems to me that were your ideas on that subject made practical they would go far toward clearing up the difficulties which surrounds this subject."

"Of course we shall not stand where we should on this important matter until the arrival of that, I fear, far off millennial day, when wise architects and intelligent school officers shall fully appreciate the fact that there are in existence such agencies as carbonic acid gas and oxygen, and that to provide an adequate supply of the one and to get rid as speedily as possible of the other is more important than fine architectural effects or elaborate furniture."

"But to return to your idea of shorter sessions. If the children in what are called the gallery classes of our primary schools, whose average age does not exceed six years, could be dismissed at one instead of three (with suitable intermissions during session), two desirable results would ensue. First, the little children would be released from long and exhausting confinement in a vitiated atmosphere; and second, the room space occupied by them could be utilized for the better

accommodation of the older pupils who remain until three o'clock."

"I would go further, for I believe more good, solid school-work can be done in all the departments in one session of four hours than is now done in six. The children return to school in the afternoon after partaking of a hearty dinner (which, I think, you will concede is not conducive to increased mental effort), often fatigued by play, and during the warm months overheated, so that the afternoon session is a tax on the vitality of both teachers and scholars, without any corresponding mental benefit. If, however, you and your coadjutors can obtain a respite for the little ones, who, I verily believe, are being poisoned by foul air and buried under 'ologies,' you will have done a good work, for which the survivors will bless you.

The necessity of medical inspection of schools, alluded to in our first report, has lately been discussed in several medical and other scientific associations. The recommendation made in the report—viz., that sanitary inspection be permanently provided for—was fully concurred in. At the meeting of the Medical Society of the State of New York, June 20, 1876, the President, Dr. Thomas F. Rochester, in his inaugural address, remarked that "education was not in all instances the unmistakable blessing which it seemed to be, for it became necessary to acquire it at too great risks." He recommended "that every school district should have a competent and well paid medical director, who should devote himself thoroughly and conscientiously to the many hygienic duties of the position. It would not involve an increased expense; on the contrary, it would be to the community a most economical procedure." "The society, as representing the profession of the State should take such action as would inaugurate and perpetuate a reform in this respect." At the meeting of the American Social Science Association at Detroit, 1875 (also at its recent meeting at Saratoga), the subject was thoroughly discussed. A project of a law establishing the office of medical inspector of schools was presented. An abstract of this law, with slight modifications, is presented for your consideration:

First—He shall be appointed by the Board of Education.

Second—Term of office, three years.

Third—Must be a physician.

Fourth—Salary.

Fifth—He shall take cognizance of the interests of health among the teachers and children of the public schools.

Sixth—He shall make sanitary investigations in respect to schoolhouses and grounds, and to all circumstances connected

with the management and instruction of schools which may appear to influence the health of scholars or teachers.

Seventh—He shall make himself acquainted with the means employed in other States for preserving the health of the inmates of schools.

Eighth—He shall seek to trace the origin and mode of extension of epidemics or other diseases among inmates of schools, and to point out measures for the arrest or preventing such diseases.

Ninth—He shall, from time to time, inform the Board of Education of the results of the aforesaid investigations and shall suggest to the said Board such modification of the sanitary management existing in the schools of this State as in his opinion would conduce to the improvement of the health of teachers and scholars.

Tenth—He shall further, in the month of January of every year, present to the Board of Education a written report of his doings and investigations in the line of his duty, as aforesaid, for the year ending with the 31st of December preceding.

Eleventh—He shall gather, and from time to time shall present to the department such information in respect to the interests of public schools as he may deem proper for the diffusion among the people.

CHLORAL CREAM.—A French pharmaceutical journal recommends the following as an agreeable formula for the administration of chloral: Take finely powdered sugar, 100 parts; chloral hydrate, 5 parts; water, 15 parts. Dissolve the chloral in the water, and triturate with the sugar in a mortar. An aromatic flavor is then obtained by the addition of the artificial essence of pine-apple, or the essence of peppermint.—*Medical Examiner*.

ANOTHER case of hydrophobia in New York from the bite of a Spitz dog. The fact that most of the cases of this horrible malady are caused by this kind of dog should certainly lead to increased precautions in the care of such dangerous creatures. The Spitz is said to be the progeny of the Arctic dog and the Esquimaux fox, and its snappish disposition and ungenial manners are reasons why it should be prevented from having an opportunity to exercise its hydrophobic propensities in any other than its native wilds.—*Ex*.

HOMŒOPATHIC TREATMENT OF TAPE-WORM.—Every one is acquainted with the fact that a snake is charmed by the sound of soft music; but it remained for a German homœopath to discover that the tape-worm is susceptible of the same influence. So, at least, we are informed by our contemporary, the *Vienna Medical Press*. The inferior orifice of the patient's intestinal canal is placed in communication with a musical box, which is set a playing. "We have not long to wait," the homœopathic doctor naively remarks. The tape-worm quickly makes his appearance head foremost, and winds himself along the connecting link toward the instrument. The latter is soon embraced in its turn, and the cure complete, for the parasite has, so to say, abstracted himself.—*Medical Examiner*.

REMEDY FOR DANDRUFF.—The *American Journal of Pharmacy* says: A French physician recommends to apply a solution of chloral hydrate containing 5 per cent. of the latter, by rubbing from $\frac{1}{2}$ to 1 ounce into the scalp by means of a sponge, and repeating it every morning. A slight burning sensation and reddening of the scalp occurs, disappearing after two minutes. If the hair has fallen off in consequence of the dandruff, it will be renewed in about a month.

The *Bulletin de Therapeutique* has just translated and republished a very interesting article from the pen of Dr. N. P. Dandridge, of Cincinnati, in regard to the dangers attendant upon the exploration of the rectum with the hand, as recommended by Simon, of Heidelberg, in 1872. The editors have always most emphatically repudiated this procedure, as dangerous in itself, and of little clinical value; and they cordially endorse the statement of Dr. Dandridge as confirmatory of their predictions. So authoritative a condemnation of the teachings of the German professor will certainly deter the surgeons of France from following them, however much they may be commended by other parties. Without pausing, however, to discuss the merits or defects of this method of diagnosis in rectal disease, etc., I will only say that the unusual circumstance of a republication, by a Parisian medical journal, of an entire article from a foreign contemporary, renders the course pursued in this instance a decided compliment to Dr. Dandridge, and gives him a certain *eclat* in Europe.—*Paris Letter in Phila. Med. Times*, by Edward Warren, M. D.

The paper referred to by Dr. Warren, on "Manual Exploration of the Rectum," was published in the May number of the LANCET AND OBSERVER.

The Duality of the Vaso-Motor System.

One of the most important results of that experimental physiology which it appears is now to become part of the function of the State to control, if not to hamper, has been the discovery of the vaso-motor system of nerves. This discovery, and the famous experiments that led to it, are now as well known as any of the most elementary facts in physiology, and its results in the elucidation of many a pathological problem can not even yet be said to have reached their final completion. Nor even, as regards the physiological question itself, has research exhausted this field; many questions regarding the operation of the vascular nerves, and the precise locality of their medullary center, are still open for investigation. There has, however, of late years been introduced an important modification, or rather extension, of the primary views of the operation of this system of nerves.

The doctrine of inhibition and inhibitory nerves is dying. The most cursory glance over the modern tendencies of physiological research is sufficient to show this. Interesting as an hypothesis, and for the most part sufficient to explain the phenomena of vascular dilatation under irritants, or on excitation of sensory spinal nerves, inhibition has failed to explain all the facts which modern science has brought to light. It remains to be seen whether the alternative hypothesis has a surer basis, as it is of wider application. Indeed, it is hardly fair to style it hypothetical, for it is adduced as fact, and much experimental proof has been detailed in support of it.

This substitute for the doctrine of inhibition may be summed up in the phrase "the duality of the vaso-motor system." It considers that all the vascular nerves may be resolved into two mutually antagonistic sets—constrictor nerves and the dilator nerves,—the normal tonicity of an artery being due to the balance kept between these two vaso-motorial agents. If that balance be destroyed, the part supplied by the vessel becomes either hyperæmic or anæmic, according as the dilating or contracting power has the upper hand. Thus, whereas on the theory of inhibition vascular dilatation was a passive process—a suspension of the usually operating vaso-motorial influence or state of contraction of the vessel, on the present view there is held to be as much action about the dilatation of an artery as there is about the narrowing of its caliber. The grounds upon which the fact of "active dilatation" of arteries is based are numerous. It has been shown that the dilator nerves take their origin from the cerebro-spinal axis. Some of their fibers

accompany the chorda tympani, irritation of which causes an active determination of blood to the submaxillary gland—a phenomenon hitherto explained on the well-known inhibition view. The opacity of the cornea and inflammation of the conjunctiva that follow section of the fifth cranial nerves on the central side of the Gasserian ganglion, without the peripheral nerve-fibers leading to the inflamed part degenerating, are explained by the assumption that the fifth pair contains dilator nerves which in the normal state of things counter-balance the action of the constrictor nerves. The ocular disturbances are thus attributed to the uncontrolled action of the latter kind of fibers, and, in support of this, it is said that there is notable narrowing of the vessels of the face on the side of the lesion. The most convincing fact of all in support of the presence of a set of vaso-motor nerves which actively dilate blood-vessels is contained in the experiments of Schiff. He has found that all erectile organs are supplied by nerves of which the stimulation is followed by an increased flow of arterial blood into the erectile tissue. The existence of these *nervi erigentes* is now pretty generally accepted, but it has hitherto been rather regarded as an isolated fact, and one peculiar to the special organs in question.

The eminent physiologist Claude Bernard has fully adopted the dual view of the nature of the vaso-motor system, and has, in his recently published work on Animal Heat, very clearly generalized upon the subject. He admits that the precise *modus operandi* of active vascular dilatation is as yet unexplained, but, fully adhering to the belief in the existence of vaso-dilator nerves, he dignifies them with the name of “calorific,” as distinguished from the vaso-constrictor or “frigorific” nerves. When the action of the former predominates, the blood-flow to the part is increased, and with it necessarily occur increased oxidation and disintegration of tissue. There may be here found some explanation of abnormal temperature following certain spinal injuries, when the vaso-dilator “center” can be established. M. Bernard would assign the phenomena of fever to the preponderating action of vaso-dilator nerves, and he points out that as the febrile process *per se* is a source of danger to life, so the aim of therapeutics should be to combat the source of this and control the undue action of calorific nerves. Such an object is attained by the external application of cold, which is one of the most certain and powerful means of subduing fever.

There is, however, one objection—an *a priori* one it is true, but still valid—to the doctrine of vaso-dilator nerves. It is

conceivable enough that arteries, in a state of tonus, are kept semi-contracted by special vaso-motor nerves, and that, on the withdrawal of that influence, they should dilate. . That, however, is only the doctrine of inhibition. The very phrase "active dilatation" implies something more; and, surely, when we speak of special "calorific nerves," which play an important part in the production of fever, we suppose there are agencies which can cause blood-vessels to dilate beyond their normal caliber, and in their whole extent. That it is impossible for blood-vessels to undergo this change by the action of their muscular walls it would be rash to assert, but it is almost inconceivable; and until it is fully explained the theory of active dilatation of blood-vessels, and therefore the duality of vaso-motor nerves, must be held under considerable reserve. The difficulty is, however, only based on *a priori* grounds, and probably the physiologist could afford an easy and satisfactory solution to it.

Sunstroke.

Dr. Horatio C. Wood, whose excellent monograph on sunstroke, or thermic fever, published a few years since, must be familiar to a large number of our readers, has an instructive article on the disease in the *Philadelphia Medical Times* for August 5th. We regret that we can not do more than skip lightly through it. Dr. Wood has been in medical charge at the Centennial Exhibition, and also on duty at the city hospitals during the recent unprecedentedly hot weather, and has been able to supplement his experimental knowledge of sunstroke with clinical observations. It may be remembered that the result reached in Dr. Wood's book was that there are two distinct classes of cases, which have been confounded under the name of sunstroke. In the one the patient is collapsed, in the other the bodily temperature is excessive. Two cases—one of each sort—which came under treatment at the Centennial are described. In the former there was a temperature as low as $95\frac{1}{4}^{\circ}$ Fah., and in the latter it rose to 108° Fah. In the two cases unconsciousness was developed with equal suddenness, and was accompanied by a similar delirium. Dr. Wood thinks it probable that in the collapse there is more than simple syncope; that lowered temperature, like elevated temperature, paralyzes the nervous matter, which has been so constituted as to perform its functions on a certain caloric level. Dr. Wood thinks that the possibility of children having

slight attacks is greatly overlooked, and has little doubt that many of the cases reported as cholera infantum, enteritis, etc., are really instances of thermic fever and are curable by treatment as such. Cases of this character usually owe their cerebral symptoms either to intense exhaustion, to be treated by stimulants, or to intense fever, to be treated by cold baths. Referring to a paper by a colleague on the cold-bath treatment of infantile diarrhœa, Dr. Wood says: "Anyone who has seen, as I have this summer, the child on whom drugs had ceased to act and who was seemingly doomed to die, relieved in twelve hours by enforced cold bathing every three or four hours, will grant to Dr. Comegys the credit of having introduced one of the most life-saving improvements in infant therapeutics. The sudden sweet sleep, replacing after the bath the fretful nights and days of unrest, is a thing never to be forgotten when once seen, and the arrest of diarrhœa is certainly no less remarkable." As regards the treatment of thermic fever the early use of the ice-water bath is advocated, the bath being used just long enough to reduce the mouth of rectal temperature to 100° Fah. and no longer. After the bath Dr. Wood has found the hypodermic injection of quinine of great service in preventing a rise of temperature. With the subsidence of the first symptoms, headache, slightly increased heat, general distress, and sometimes mental incoherency, supervene. These Dr. Wood believes to be due to a low grade of meningeal or even cerebral inflammation. He has found them yield in some cases very rapidly to free blistering of the back of the neck and head, aided by small repeated doses of mercurials. One great cause of the excessive mortality from sunstroke in hospital practice is recognized in the length of time that elapses between the onset of the disease and the use of the bath. In the Philadelphia hospitals and ambulances measures have been taken to obviate this danger.

Bromide of Arsenic in the Treatment of Epilepsy.

Dr. Th. Clemens, of Frankfort-on-the-Main, has employed bromide of arsenic for twenty years in the treatment of diseases of the nervous system, and especially of epilepsy, and claims that he has obtained astonishing results with it. He uses the liquor of bromide of arsenic, and gives one or two drops in a glass of water once, or, if necessary, twice daily. These minute doses may be given for months, and even

years, without producing the usual unpleasant effects of a long continued arsenical course. All his cases of epilepsy have been markedly relieved and improved by this remedy, but in only two cases has it produced a complete cure. In many cases of incurable epilepsy, complicated with idiocy and deformities of the skull, the fits were reduced in number from twenty in the twenty-four hours to four, or even two—a result that has been obtained by no other treatment. In connection with the bromide of arsenic, an almost exclusively meat diet is advised. The patients should be as much as possible in the open air in the day-time, and their windows should be kept open at night. Unlike bromide of potassium, this remedy does not require to be given in increasing doses, and instead of interfering with digestion, improves the nutrition and strength. Dr. Clemens has employed the following formula since 1859, and thinks that it ought to replace Fowler's solution, which is irrational in its composition and uncertain in its action. This solution becomes stronger with time, the chemical union of the bromide with the arseniate of potash becoming more and more perfect.

LIQUOR ARSENICA BROMIDI.

Arsenious acid, powdered,	1 drachm.
Carbonate of potassa,	1 “
Bromine,	2 drachms.
Water, enough to complete	20 ounces.

Boil the acid and carbonate together until the dissolution is effected, add enough water to complete the quantity, and the bromine when the mixture has become cold.

MEDICAL SUPERVISION IN SCHOOLS.—The Boston Board of Education has appointed a committee to report upon the advisability of a medical inspector of schools. If this committee wish to reflect the sentiment of the medical profession and of an enlightened public, there is but one result to be anticipated. We imagine, however, that there is to be no difficulty in using the proper arguments at the proper time, and in speedily initiating the desired reform. In the meantime our own Board of Education is stupidly stubborn on this vital question. But the time is not far distant when what may now be a matter of choice may be changed into one of compulsion.—*Med. Record.*

It would be wise action on the part of every Board of Education in large cities to appoint a committee to report upon the advisability of appointing a medical inspector of schools.

Editorial.

Look over our list of contributors to the LANCET AND OBSERVER during the year that is now closing. The gentlemen whose names are there recorded will compare favorably with those who write for any journal in the country; and they have the satisfaction of knowing that but very few other journals published in America could have given them so large a number of readers.

The first of the year the size of this journal was increased to ninety-six pages of reading-matter. With the beginning of another year the appearance will also be much improved, by the use of a fine quality of paper, and, as occasion may require, the number of pages will be still further increased.

No effort will be spared to place before our readers one of the best and at the same time the cheapest journal published. Remember the low club rates offered, two copies for six dollars and four copies for ten dollars per annum. All subscriptions are due in advance.

During the year 1877, we expect to publish a series of articles on "Diseases of the Rectum," by Reuben A. Vance, M. D., of Gallipolis, Ohio. Dr. Vance was for some years on duty in Bellevue Hospital, New York, and had abundant opportunities to make special studies in any direction. These papers are the result of his observations.

The following circular explains itself:

"A number of the physicians of Zanesville, members of the "Zanesville Academy of Medicine," seeing the interest which attaches to the subject of Syphilis at this time, and believing that the discussion of this topic will be beneficial, have agreed to introduce the subject for discussion, at the meeting of the Academy, on the 28th of September, inst. It is understood that this discussion will not interfere with the reports of the sections of the Academy.

"The following named gentlemen have agreed to report upon the points mentioned in relation to Syphilis:

Dr. C. C. Hildreth—What is Syphilis?

Dr. J. R. Black—On the prevention of;

Dr. A. Ball—On the transmissibility of;

Dr. C. H. Evans—On the incubation of;

Dr. D. C. Peters—On the diagnosis of;

Dr. W. C. Lenhart—On the history of;

Dr. J. R. Larzelere—On the mode of introduction of the Syphilitic poison into the system;

Dr. J. S. Halderman—On the pathology of;

Dr. J. T. Davis—On the treatment of the primary form;

Dr. J. F. Kennedy—On the treatment of the secondary form;

Dr. A. E. Bell—On the treatment of the tertiary form;

Dr. A. C. Oatley—On the treatment of Congenital Syphilis;

Dr. J. B. Erwin—On the treatment of Syphilis by inoculation;

Dr. J. W. Hamilton, of Columbus—On any point he may select;

Dr. H. Culbertson—Are there one or two Syphilitic poisons?

"All members are respectfully invited to participate in this discussion, which will probably extend through several sessions of the Society.

H. CULBERTSON,

ZANESVILLE, O., Sept. 1, 1876. *Corresponding Secretary.*"

The above reports will be published in the LANCET AND OBSERVER—that by Dr. J. R. Black appears in this issue.

We are glad to state that Dr. J. L. Neave, of this city, has made arrangements by which he is enabled to supply the profession at any time with a fresh article of non-humanized vaccine virus. His charges are very moderate, \$2 40 for one dozen quill slips. Our own experience attests the value of the virus.

THE PHYSICIAN'S VISITING LIST FOR 1877; Lindsay and Blakiston, publishers.—For twenty-five years this Visiting List has been favorably received, and very generally used by a large portion of the medical profession of the United States. In fact, it is so well known that a description is not needed.

The treatment of inflammatory affections of the bowels in young children, as pursued by Dr. Comegys of this city, and recommended by him in a paper recently published, has been employed with very gratifying results in other large cities of this country and Europe.

MARRIED—At the residence of the bride's parents, in Syracuse, N. Y., on Wednesday, Nov. 29, 1876, by Rev. S. Weeks, of Cincinnati, Mr. Clint. C. Robinson, of Evansville, Ind., and Miss Carrie I. Stevens, daughter of Dr. E. B. Stevens.

Obituary.

MEETING OF PHYSICIANS.

RESOLUTIONS OF RESPECT TO THE MEMORY OF THE LATE DR. J. M. JOHNSON.

Learning of the death of Dr. J. M. Johnson, of Hillsboro, the physicians of the town met at the office of Dr. S. J. Spees, on the evening of October 6th. Present—Drs. E. Holmes, B. F. Holmes, D. Callahan, R. C. Russ. P. H. Wever, W. W. Shepherd, C. Matthews, F. Metz, W. S. Patterson, and S. J. Spees.

Dr. E. Holmes was called to the chair, and S. J. Spees chosen Secretary.

On taking the chair Dr. Holmes said: It is right that we of the Profession, and especially we who knew Dr. J. M. Johnson intimately, should give some expression of our feeling, now that he is no more—that his connection with things temporal has ended. To fully appreciate Dr. J. M. Johnson, his general character, manly virtues and professional eminence, it would be necessary to know him long and know him well. Although he occupied a high and honorable position in our profession, he was not an active participant in that busy bustle of the laborious, steep-hill practice of a village or country physician, but was nevertheless earnestly devoted to the duties, and highly appreciated a continuous upward and honorable professional career—ever courteous and kind to his fellow-citizens in general, and I might say especially to those of the profession of medicine, and more particularly so to his juniors.

Dr. Johnson and myself commenced our professional career in the same locality, and with, or perhaps I should say under, the supervision of that venerable and honorable preceptor and practitioner, Dr. Wm. McCollum, of New Petersburg, this county. He is gone. May every member of the profession emulate the character of such men, and their professional virtues will shine brighter and brighter even after life's fitful sun has set.

Dr. Spees said he had known Dr. Johnson since the summer of 1834; had been intimate with him in professional life; met him frequently at the bedside of the sick; had been associated with him in the Highland County Medical Society since 1838.

In all this time, in all these relations, Dr. Johnson was found the honorable, high-minded physician, seeking to elevate the profession, ameliorate human suffering, and better the condition of society. He was one of God's noblemen.

Drs. D. Callahan and W. W. Shepherd were appointed a committee to invite the neighboring physicians, and make the necessary arrangements to attend the funeral of the deceased.

Drs. P. H. Wever, R. C. Russ, and W. S. Patterson were appointed a committee on resolutions, to be presented to a subsequent meeting.

It was resolved that the profession attend the funeral of Dr. Johnson in a body, in procession, on foot. The meeting then adjourned to meet at Dr. Spees' office at 7 o'clock, P. M., October 7.

October 7, 7 o'clock P. M.

The profession of Hillboro met pursuant to adjournment. Present—Drs. D. Noble, J. W. Quinn, R. C. Russ, C. Matthews, W. S. Patterson, D. Callahan. and S. J. Spees. Dr. Holmes being absent, Dr. D. Noble was called to the chair. The minutes of the previous meeting were read and approved.

The Committee on Resolutions, heretofore appointed, reported the following:

WHEREAS, It has pleased an all-wise Providence to remove by death from us our highly esteemed friend and fellow-practitioner, Dr. J. M. Johnson; and

WHEREAS We, his associates, deem it a duty to give an expression to our sentiments in relation to this affecting dispensation; therefore,

Resolved, That in the death of Dr. J. M. Johnson the profession loses a good physician, and society a courteous and highly Christian gentleman and citizen.

Resolved, That we tender to the family of the deceased our sympathy; that a copy of these resolutions be sent to them, and that they be published in the Hillsboro papers, and also a copy be sent by the Secretary to the LANCET AND OBSERVER for publication.

P. H. WEVER,
R. C. RUSS,
W. S. PATTERSON,
Committee.

On motion the report was unanimously adopted.

Dr. Noble said the vote of the previous meeting, deciding that we should attend the funeral on foot, should be reconsid-

ered, as the physicians who formed the procession at the funerals of Drs. Sams and Kirby preceded the hearse to the cemetery on horseback, and as he was opposed to any discrimination or change of procedure, he was decidedly in favor of the same order being observed; but he did not desire to make any motion, but merely to suggest a reconsideration of the vote.

He hoped the meeting would indulge him a few moments (being out of the city at the time of the previous meeting), so that he might bear testimony to the moral worth, strict integrity and high professional standing of our departed brother, Dr. J. M. Johnson. He said Dr. Johnson was a man of decided conscientious convictions, and hence any cause he espoused, whether in church or state, had his undivided and ardent support. As an advocate of the principles of his political party, through the medium of the press, the productions of his pen bear the impress of a well-trained mind, highly cultivated intellect, powerful reasoning faculties, combined with a wonderful facility of expressing his views in an argumentative, terse and convincing manner.

As a physician, Dr. Johnson was safe, sound and reliable. His kind and urbane manner, combined with his good common sense, made him not only a successful practitioner, but a great favorite with his patrons. He made no pretensions to great surgical skill, being timid and retiring in his nature, but no more scientific, careful dispenser of medicine could be found among his contemporaries. He was no friend to charlatanry or pretentious merit, no matter in what form or guise it appeared.

I would be derelict in duty and gratitude did I omit to acknowledge the kind treatment of this good, modest man when I entered the profession, and needed some medical man on whom I could rely for sage and wise counsel, and I am glad to be able to say that, from the testimony of others, I have not been the only recipient of his favors. Many to whom this notice will come, will drop a tear to his memory. Peace to his ashes!

On motion of Dr. Matthews the minutes were so amended as to read "on horseback," instead of "on foot."

The chair appointed Dr. S. J. Spees to superintend the manner and place the physicians should occupy in the funeral cortege.

On motion the meeting adjourned.

DAVID NOBLE, *Chairman.*

S. J. SPEES, *Secretary.*

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